



State of California  
Department of Transportation

## ***Construction Storm Water Coordinator Guidance Manual***



CTSW-RT-02-056

January 2003

## **TABLE OF CONTENTS**

<b><u>1.0</u></b>	<b><u>INTRODUCTION .....</u></b>	<b><u>1</u></b>
<b><u>2.0</u></b>	<b><u>ROLES AND RESPONSIBILITIES.....</u></b>	<b><u>2</u></b>
2.1	Construction Manual Requirements.....	2
2.2	SWMP Requirements.....	3
2.3	Regional Work Plan Requirements.....	3
2.4	Headquarters Division of Construction.....	4
2.5	District NPDES Storm Water Coordinator .....	6
2.6	District Storm Water Teams.....	6
	2.6.1 District CSWC .....	7
	2.6.2 Storm Water Team Subordinate Staff .....	7
2.7	Resident Engineer .....	8
2.8	Storm Water Advisory Teams (SWATs) .....	8
2.9	Statewide Policy – Review and Development .....	9
	2.9.1 Construction Program Procedure Bulletins.....	9
	2.9.2 Construction Program Directives .....	9
	2.9.3 Standard Special Provisions .....	9
	2.9.4 Storm Water Quality Handbooks .....	9
	2.9.5 Construction Manual .....	10
	2.9.6 Modifications to NPDES Permits .....	10
	2.9.7 Training .....	10
	2.9.8 RE Meetings.....	10
<b><u>3.0</u></b>	<b><u>PROJECT PROGRESSION .....</u></b>	<b><u>11</u></b>
3.1	Project Tracking .....	11
3.2	Notification of Construction (NOC) .....	12
3.3	Pre-Construction Meeting .....	12
3.4	SWPPP/WPCP Review.....	14
3.5	Site Inspections .....	15
	3.5.1 Contractor Inspections.....	15
	3.5.2 Resident Engineer Inspections .....	16
	3.5.3 Consultant Compliance Inspections.....	17
	3.5.4 Consultant Assistance .....	18
	3.5.5 CSWC Field Reviews.....	18
	3.5.6 Encroachment Permit Projects .....	19
3.6	Maintenance Reviews .....	19
3.7	Annual Certification of Compliance .....	19
3.8	Notice of Discharge/Non-Compliance .....	20
	3.8.1 Immediate (24-Hour) Reporting.....	21
	3.8.2 Five-Day Reporting.....	21
	3.8.3 48-Hour Reporting .....	22
	3.8.4 30-Day Reporting.....	22

3.9	<u>Rainy Season Reminders</u> .....	22
3.10	<u>Rain Storm Alerts</u> .....	23
3.11	<u>Notice of Completion of Construction (NOCC)</u> .....	24
	3.11.1 <u>Who Should File</u> .....	24
	3.11.2 <u>When To File</u> .....	24
	3.11.3 <u>Where To File</u> .....	25
3.12	<u>Project Closeout</u> .....	25
3.13	<u>Project Termination</u> .....	26
<b>4.0</b>	<b><u>TECHNICAL ASSISTANCE</u></b> .....	<b>28</b>
4.1	<u>BMP Troubleshooting</u> .....	28
	4.1.1 <u>Soil Stabilization</u> .....	28
	4.1.2 <u>Sediment Controls/Linear Barriers</u> .....	29
	4.1.3 <u>Temporary (Secondary) Containment for Materials and Waste</u> .....	30
4.2	<u>Sampling and Analysis Plans (SAPs)</u> .....	31
4.3	<u>Contract Change Orders (CCOs) and Claims</u> .....	32
4.4	<u>Training</u> .....	34
4.5	<u>Erosion Control Products and Application</u> .....	35
4.6	<u>Dewatering</u> .....	36
4.7	<u>Landscape Concerns</u> .....	37
<b>5.0</b>	<b><u>REPORTING</u></b> .....	<b>38</b>
5.1	<u>Annual Report</u> .....	38
5.2	<u>Management Updates</u> .....	39
<b>6.0</b>	<b><u>REGULATORY AGENCIES</u></b> .....	<b>40</b>
6.1	<u>SWRCB and RWQCBs</u> .....	40
6.2	<u>California Department of Fish and Game</u> .....	40
6.3	<u>U.S. Army Corps of Engineers</u> .....	43
6.4	<u>Department of Toxic Substances Control</u> .....	44
6.5	<u>Air Pollution Control Districts/Air Quality Management Districts</u> .....	44

## **LIST OF FIGURES**

Figure 1	<u>Caltrans Storm Water Program Functional Organization</u> .....	2
Figure 2	<u>Headquarters Construction Division Storm Water Coordinators</u> .....	6

## **LIST OF APPENDIXES**

- Appendix A    Notification of Construction  
                  Notification of Construction (Desert Areas)  
                  Notice of Completion of Construction
- Appendix B    Notice of Discharge Form
- Appendix C    Storm Water Quality Construction Site Inspection Checklist  
                  Storm Water Task Force Inspection Checklists
- Appendix D    Sampling and Analysis Plan for Sediment Template  
                  Sampling and Analysis Plan for Non-Visible Pollutants Template  
                  Pollutant Testing Guidance Table
- Appendix E    Pre-Construction Meeting Agenda – Example
- Appendix F    Storm Water Contacts at the Regional Water Quality Control Boards  
                  Caltrans Storm Water Coordinators
- Appendix G    Aerially Deposited Lead Variances for Districts 4, 6, 7, 8, 10, 11, and 12
- Appendix H    Rainy Season Reminder – Example
- Appendix I    Rain Storm Alert – Example
- Appendix J    Assistance Inspection Checklist and Report Form
- Appendix K    Rainfall Area Definitions  
                  Recommended Combination of Temporary Soil Stabilization and Temporary  
                  Sediment Barriers for Nonactive Disturbed Soil Areas  
                  Recommended Combination of Temporary Soil Stabilization and Temporary  
                  Sediment Barriers for Active Disturbed Soil Areas
- Appendix L    CERCLA Hazardous Substance List
- Appendix M    CSWC Statewide Meeting Agenda - Example  
                  CSWC Statewide Meeting Minutes - Example
- Appendix N    Clean Water Act 303(d) Water Bodies Impaired Due to Sedimentation/Siltation or  
                  Turbidity
- Appendix O    List of Internet Websites
- Appendix P    Map of Caltrans Districts and RWQCB Regional Boundaries
- Appendix Q    Sample District Storm Water Team Organization Charts
- Appendix R    Highway Design Manual Tables
- Appendix S    Water Pollution Control for PS&E - Review Guidelines for Consultant Oversight



## 1.0 Introduction

This Guidance Manual summarizes the responsibilities of the District Construction Storm Water Coordinator (CSWC) as defined in the *Caltrans Construction Manual* and the *Caltrans Statewide Storm Water Management Plan* (SWMP), and as identified by Headquarters and District CSWC staff throughout the state.

The Guidance Manual also provides copies of referenced forms, useful samples of working documents, and suggestions for the CSWC to facilitate the implementation of the statewide and District-specific responsibilities for water pollution control.

Throughout the Guidance Manual, the National Pollutant Discharge Elimination System (NPDES) Permits are referred to as follows:

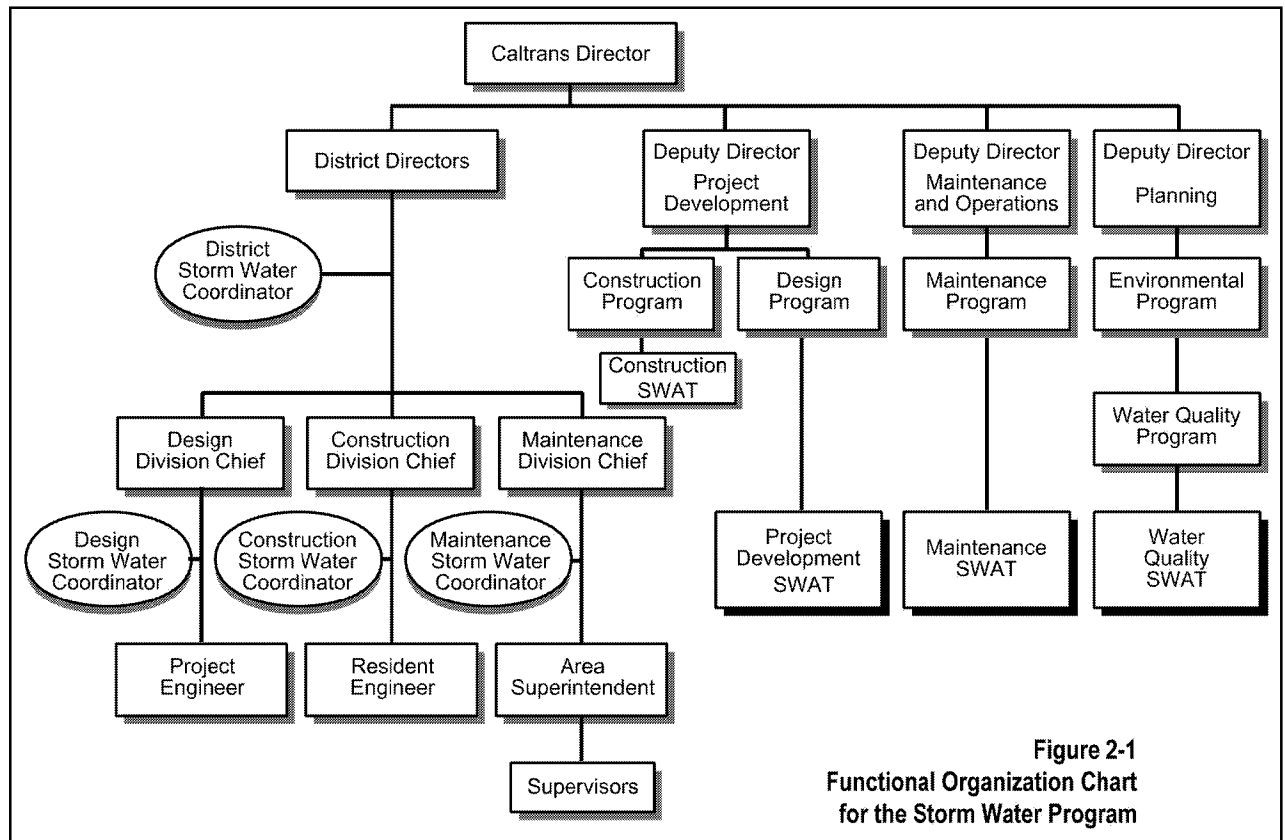
- *Caltrans Statewide NPDES Permit* (often referred to as the “03 permit”) refers to the “National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans),” NPDES No. CAS00003
- *Statewide Construction NPDES Permit* (often referred to as the “02 permit”) refers to the “National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Runoff Associated with Construction Activity”
- *Modifications to the Statewide Construction NPDES Permit* refers to Water Quality Order 99-08-DWQ, State Water Resources Control Board, NPDES General Permit for Storm Water Discharges Associated with Construction Activity, April 26, 1999.

The *Construction Manual*, SWMP, and NPDES Permits can be accessed on the Internet as identified in Appendix O.

**2.0 Roles and  
Responsibilities**

## 2.0 Roles and Responsibilities

The function of the CSWC within the overall organization of the Caltrans Construction Storm Water Program is identified in Figure 2-1 of the SWMP (reproduced in Figure 1 below). This section summarizes the roles and responsibilities of Headquarters and District level functions as defined in applicable Caltrans statewide and District documents.



**Figure 1** Caltrans Storm Water Program Functional Organization

## 2.1 Construction Manual Requirements

Section 7-104(B(1)) of the *Construction Manual* requires that each District designate a CSWC to facilitate implementation of the Project Development Storm Water Management Program. As such, the primary role of the CSWC is to perform the necessary administrative functions to prevent water pollution. In this capacity, the CSWC interacts with other personnel in other District-level functional units, provides assistance to Resident Engineers (REs), and ensures that field construction personnel are appropriately trained to ensure compliance with water pollution control requirements. Although the CSWC receives assistance from other District-level staff, the CSWC does not have line supervisory authority.

## 2.2 SWMP Requirements

Section 2.2.8 of the SWMP defines the role of the CSWC as providing assistance to the Construction Division to implement its storm water management activities and to facilitate implementation of the SWMP.

## 2.3 Regional Work Plan Requirements

Each District has its own roles and responsibilities for the CSWC, as defined in the Caltrans Regional Work Plans (RWPs). RWPs for 2002/2003 are available on the Caltrans Internet web site as identified in Appendix O.

Some roles and responsibilities defined in the RWPs are the same as those identified in the SWMP. Other RWPs provide additional detail about the roles and responsibilities of the CSWC. These roles and responsibilities include:

- Developing storm water quality policies and guidance, and daily management of the District Construction storm water quality program
- Implementing SWMP and RWP requirements properly within Construction
- Supervising staff who implement program requirements in the field during the construction phase
- Acting as the primary point of contact for storm water issues during the construction phase
- Developing and administering storm water training for Construction staff
- Reviewing project Storm Water Pollution Prevention Plans (SWPPPs)
- Tracking critical compliance milestones that occur prior to and during the course of construction
- Conducting final project closeout inspections
- Submitting Notices of Completion of Construction (NOCCs) for SWPPP projects
- Submitting approved SWPPPs to the Regional Water Quality Control Boards (RWQCBs) as requested
- Submitting reports to the RWQCBs as requested
- Providing oversight inspections for SWPPP projects
- Preparing and submitting Threat of Discharge reports
- Preparing and submitting Illicit Connection/Illegal Discharge (IC/ID) Reports for Construction
- Representing Construction in the District's Storm Water Management Committee (SWMC) meetings
- Providing input to the Annual Report
- Participating in the Construction Storm Advisory Team (SWAT), as defined in the SWMP (Section 2.7)
- Ensuring that all enforcement actions or corrections requested by the RWQCBs are promptly implemented and documented

- Serving as the primary conduit for information during the construction phase for the RWQCBs, Headquarters Construction, and construction field staff
- Supporting the design-related functional units in determining specific project needs and evaluation of water pollution control measures in the field.

## 2.4 Headquarters Division of Construction

Headquarters Construction Division Program responsibilities for storm water management are described in Section 2.2.4.2 of the SWMP. Staff at the Construction Division Program level provide program coordination, evaluation and reporting.

In conjunction with the Water Quality Program, the Construction Division Program provides general guidance to Construction Divisions in the Districts for implementing construction Best Management Practices (BMPs) and for the review of SWPPPs and Water Pollution Control Programs (WPCPs).

The Construction Division Program assesses the District's implementation of storm water BMPs for managing the storm water discharges associated with Caltrans construction projects. The Construction Division Program assists the Water Quality Program in the preparation of the Annual Report to the State Water Resources Control Board (SWRCB) as it relates to Construction activities.

The Construction Division Chief Program Manager is responsible for statewide implementation policies and procedures and the personnel and equipment of the Construction Program. This includes ensuring compliance with all elements of the SWMP required to be implemented by the Construction Program.

Headquarters Construction Division Storm Water Coordinators and their geographical areas of responsibility are shown in Figure 2. The responsibilities of the Headquarters Construction Storm Water Coordinators include:

- Developing policies and specifications
- Providing technical support
- Processing evaluations
- Participating in the Construction SWAT
- Developing guides, manuals and other publications
- Negotiating permits
- Training for Caltrans and contractor staff
- Evaluating and developing BMPs
- Supporting contract administration
- Acting as liaison to Caltrans Legal
- Acting as liaison to Landscape Architecture and Design
- Annual reporting
- Managing consultant contracts

- Automating facilities system reporting (hardware/software)
- Supporting Notices of Violation (NOVs) and RWQCB/SWQCB sanctions
- Supporting legislative review

Headquarters Construction Storm Water Coordinators are a resource for District CSWCs. Updates to the Headquarters staff information can be found on the website: ([to.be.determined.com](http://to.be.determined.com)).



**Figure 2** Headquarters Construction Division Storm Water Coordinators

## 2.5 District NPDES Storm Water Coordinator

The District Storm Water Coordinator (SWC) is the highest District-level storm water function identified in the Storm Water Functional Organization (Figure 1). The District SWC is also referred to as the District NPDES SWC.

Each District designates a District NPDES SWC to serve as the liaison between the District and the Caltrans Headquarters Water Quality Program. Liaison activities include conducting meetings related to storm water management issues with the coordinators from each Caltrans functional unit and with other Municipal Storm Separate Sewer System (MS4) permittees to discuss problems and concerns. Liaison activities also include regular communications with representatives of the RWQCB.

In addition, the District NPDES Storm Water Coordinator has the following responsibilities:

- Serving as the point of contact for regulatory inquiries regarding implementation of the SWMP
- Receiving and responding to public inquiries made to the District regarding storm water management issues
- Coordinating, tracking and reporting the District's response to IC/ID incidents and non-permitted non-storm water discharges. The District NPDES SWC is responsible for coordinating, tracking and reporting the response to IC/IDs. Instances of IC/IDs discovered by Construction field staff trained to recognize IC/IDs must be reported to the District NPDES SWC. The District NPDES SWC will coordinate with other Caltrans Department functional units as necessary to correct or eliminate the IC/ID.
- Reporting instances of non-compliance to the RWQCBs, unless otherwise indicated in the RWP.

An key responsibility of the District CSWC is to coordinate with the District NPDES SWC for various storm water activities. The CSWC should also notify the District NPDES SWC of any events on construction projects that require reporting to the RWQCB. At a minimum, the CSWC must notify the NPDES Storm Water Coordinator if any of the following events occur on construction projects within the District:

- IC/ID incidents
- Non-compliant discharges or events
- Other matters that require communication with the RWQCB

## 2.6 District Storm Water Teams

Typically, each District designates personnel as members of a "Storm Water Team" to address water pollution control within the District. The CSWC generally has a key role as a member of the team, although the actual organization of the team differs from District to District. Organization charts of the Storm Water Teams in Districts 4, 7 and 8 are provided in Appendix Q to illustrate different approaches to team organization.

### **2.6.1 District CSWC**

The CSWC is often the designated team leader for District Construction water pollution control depending on the needs of the District. As the team leader, the CSWC coordinates all issues that involve overall compliance within the District for storm water pollution prevention on construction sites. A significant percentage of that role is administrative, involving paperwork and other office-related tasks. Typical tasks of a team leader include:

- Scheduling CSWC staff field reviews
- Tracking projects and managing databases
- Attending pre-construction meetings
- Reviewing all SWPPP documents
- Reviewing WPCPs on request
- Corresponding with the RWQCB, in coordination with the District NPDES SWC, regarding NOCCs, discharge notices, and other regulatory issues
- Coordinating and tracking water pollution control training of Construction staff
- Presenting water pollution control compliance information to management
- Assisting with preparation of status reports and Annual Reports
- Consulting with Senior Construction Engineers and REs regarding Contract Change Orders (CCOs) and payment issues regarding water pollution control
- Collecting and logging annual compliance certifications
- Submitting SWPPPs to the RWQCB as required
- Preparing guidelines for staff
- Drafting construction policy for management review
- Submitting rain alerts and severe weather warnings
- Attending, or scheduling staff to attend, compliance inspections

The CSWC supervises the activities of subordinate CSWC personnel. However, as a member of the team, the CSWC may also perform the role of subordinate personnel, as described in the following sections.

### **2.6.2 Storm Water Team Subordinate Staff**

The District CSWC staff should focus on day-to-day issues on individual construction projects, with CSWC field personnel spending up to 90 percent of their time in the field. Typically, CSWC field personnel are assigned to geographical areas in which they conduct compliance inspections and technical on-call assistance to project staff. Their responsibilities include:

- Reviewing all SWPPP projects; visiting approximately 2-3 projects per week
- Inspecting WPCP projects as time allows
- Preparing inspection reports in electronic format
- E-mailing reports to the RE, CSWC, and other appropriate project staff
- Escorting Storm Water Task Force (SWTF) compliance inspectors on site visits

- Conducting final close-out inspections of projects to verify that final stabilization requirements have been met and that temporary BMPs, trash and debris have been removed as required.

## **2.7 Resident Engineer**

One responsibility of the CSWC is to assist REs to ensure water pollution control compliance on their projects. The RE is the Caltrans representative charged with administering construction contracts and is responsible for ensuring that storm water controls are implemented on construction sites. The RE makes decisions regarding the acceptability of material furnished and work performed, and exercises contractual authority to direct the contractor. The RE may impose sanctions if the contractor fails to take appropriate actions specified in the contract to correct deficiencies.

The RE reviews the project WPCP or SWPPP and indicates to the contractor any required changes. The RE must approve the WPCP or SWPPP prior to the commencement of soil-disturbing activities. Amendments to the WPCP or SWPPP must also be approved by the RE.

The RE regularly inspects the construction site for proper installation and maintenance of BMPs and overall implementation of the approved WPCP or SWPPP. The RE also ensures that the contractor conducts and documents storm water inspections as required in the contract. The RE is responsible for ensuring that the annual certification of compliance for SWPPP projects is completed.

Additional water pollution control duties of the RE include:

- Maintaining SWPPP or WPCP documentation
- Inspecting for and reporting IC/ID incidents
- Under certain circumstances, directing the cleanup and/or removal of illegally dumped material, spills or discharges through illicit connections within the limits of the construction site
- Forwarding notices of discharge to the CSWC.

## **2.8 Storm Water Advisory Teams (SWATs)**

Caltrans has established the Storm Water Advisory Teams (SWATs) to provide statewide input for the evaluation of new and improved BMPs and to develop procedures and guidance for implementing the SWMP. For Construction, the SWAT is composed of District CSWCs and representatives from the Construction Program. Construction SWAT meetings and activities are coordinated by the Headquarters Construction Division SWC. The Headquarters Construction Division SWCs are also part of the SWATs for Project Development and Maintenance.

The Construction SWAT generally meets quarterly to discuss updates to the storm water program, provide status reports, communicate new technology, and discuss water pollution control issues. Sample Construction SWAT agenda and meeting minutes are attached as Appendix M.

## **2.9 Statewide Policy – Review and Development**

### **2.9.1 Construction Program Procedure Bulletins**

Caltrans Headquarters Construction Program distributes Construction Program Procedure Bulletins (CPBs). These bulletins address many Construction issues, including storm water pollution prevention. These bulletins are available on the Caltrans Construction website (Appendix O).

### **2.9.2 Construction Program Directives**

Caltrans Headquarters Construction Program distributes Construction Program Directives (CPDs) internally to its staff. CPDs that address storm water pollution prevention issues are as follows:

- CPD 00-12 and 00-12.1 Contract Change Order (CCO) procedures to comply with the *Modifications to the Statewide Construction NPDES Permit*
- CPD 01-07 Sampling and Analysis Plan requirements to comply with the *Modifications to the Statewide Construction NPDES Permit*
- CPD 01-08 Revised May 2001 SWMP implementation
- CPD 02-7 Water Pollution Control Inspection for Off-site Construction Activities
- CPD 02-9 New Requirements for Temporary Concrete Washout Facilities (Type Below Grade)

### **2.9.3 Standard Special Provisions**

To facilitate the preparation of contract Special Provisions that are consistent statewide, Caltrans has developed Standard Special Provisions (SSPs). Approximately 700 highway-oriented SSPs have been published. The Districts are notified when new or revised SSPs are available. The Standard Specifications and the most recently approved SSPs are available on the Caltrans website (Appendix O).

### **2.9.4 Storm Water Quality Handbooks**

The Caltrans Storm Water Quality Handbooks consist of several guidance manuals, including:

- Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (*SWPPP/WPCP Preparation Manual*)
- Construction Site Best Management Practices (BMPs) Manual (*BMPs Manual*)
- Project Planning Design Guide

The *SWPPP/WPCP Preparation Manual* and the *BMPs Manual* are used for the development review, and approval of construction project SWPPPs and WPCPs.

### **2.9.5 Construction Manual**

The *Caltrans Construction Manual* is a resource for all personnel engaged in contract administration. The manual establishes policies and procedures for Caltrans staff for the construction phase of Caltrans projects. Section 104B of the Construction Manual addresses water pollution control. It describes the roles and responsibilities of the CSWC, RE, RE's SWPPP inspectors, and contractor for water pollution control. It is not a contract document and is not binding for the contractor, so it must never be used as a substitute or supplement to the Standard Specifications, SSPs and other contract requirements. The manual is available on the Caltrans website (Appendix O).

### **2.9.6 Modifications to NPDES Permits**

Occasionally, the SWRCB or RWQCBs promulgate modifications to statewide and regional NPDES permits during their effective period. Caltrans must comply with these modifications. The most recent modification was to the Statewide Construction NPDES Permit to add sampling and analysis requirements for certain construction projects, as described in Section 4.2.

### **2.9.7 Training**

Caltrans statewide training programs related to water pollution control are described in Section 4.4.

### **2.9.8 RE Meetings**

Meetings are held annually for all REs in a District, usually at locations away from the District to avoid distractions from ongoing projects. A variety of topics are addressed, including water pollution control. The CSWC should use these meetings as a platform for presenting any new developments or issues regarding storm water pollution prevention to the large audience of REs. Some Districts also hold 2-4 hour mini-RE meetings to discuss timely issues that are of concern to the RE; water pollution control is often one of the topics.



### 3.0 Project Progression

CSWC responsibilities begin before construction actually starts at a project site. CSWC responsibilities may include constructability reviews. The CSWC may also be given responsibility for reviewing documents prepared during the development of the project, such as Project Study Reports (PSRs), Project Reports (PRs), and Plans, Specifications and Estimates (PS&Es). The CSWC reviews planning and development documents for storm water pollution prevention compliance issues such as:

- PSRs/PRs should include cost estimates for water pollution controls and verbiage for compliance with the NPDES permits.
- The PS&E stage should include review of the cost estimates, water pollution control contract special provisions, and plans for permanent BMPs.

Water pollution control review guidelines for consultant oversight for PS&E are provided in Appendix S. The CSWC should use these guidelines for reviewing projects at the PS&E 35 percent, 65 percent, 95 percent and 100 percent stages.

#### 3.1 Project Tracking

CSWCs use various methods to track projects. A starting point is to use the Statement of Going Contracts (SOGC) to identify all active projects in the District. The SOGC is updated regularly and can be accessed on the Caltrans website (Appendix O). To complete the list of projects, the CSWC must add the encroachment permit projects that are assigned to Construction for oversight. The SOGC also lists upcoming projects, so that the CSWC can identify those projects that require pre-construction water pollution control review.

The CSWC should track the following events electronically for each project:

- Date the Notification of Construction (NOC) was filed
- Date an invitation to a pre-construction meeting was sent to RWQCB and contact name
- Date the SWPPP/WPCP was submitted by the contractor for approval by the RE
- Date the SWPPP/WPCP was returned to the contractor with required corrections
- Date the SWPPP/WPCP was approved
- Construction start date
- Rainy season dates
- Results of project SWPPP/WPCP inspections by the RE, contractor, CSWC or staff (e.g., biweekly inspections, before, during and after rain event inspections)
- Results of CSWC inspection of Project's Category 20 file (e.g., monthly inspections)
  - Contractor inspection reports
  - Caltrans inspection reports
  - Correspondence between Caltrans and contractor

- Rainy season implementation plan submittal and implementation dates
- Monitoring documentation for 303(d) impaired water bodies SAP requirements
- Monitoring documentation for non-visually detectable pollutants SAP requirements
- Date annual certification of compliance is submitted to RWQCB
- Ratings received from consultant compliance inspections
- Dates of RWQCB inspections, NOVs, NOCs, etc.
- Dates of notices of discharge/non-compliance
- Contractor training
- Date NOCC is submitted to RWQCB after project completion

The CSWC forwards electronic tracking information to the Headquarters Construction Division SWC. The data for all projects will be stored on the Caltrans intranet site at a location to be determined when a statewide tracking system is fully implemented.

### **3.2 Notification of Construction (NOC)**

Caltrans is required to notify the RWQCB 30 days prior to construction for projects that require a SWPPP under the Caltrans Statewide NPDES Permit. The Notification of Construction (NOC) form provides the tentative construction start date and duration of the project; the estimated affected areas and a vicinity map; the RE name/contact information; and field office information and location map. The notification is usually submitted by Project Development.

Since notification is required 30 days prior to construction, an amended NOC is usually required once an RE is assigned to the project since the RE's name and contact information are required. The CSWC should assist the RE in amending the NOC and submitting the amended form to the RWQCB.

A special NOC form is required for construction projects that require a SWPPP within the desert areas of RWQCB 6 or 7 below 1,200 m in elevation. (Refer to Appendix P for a map of RWQCB and Caltrans District boundaries.) The NOC - Desert Areas includes additional information including: check boxes for the six BMP categories to be considered, and United States Geological Survey (USGS) coordinates northing and easting blanks. This form is also required to be submitted 30 days prior to construction and is usually submitted by Project Development. The CSWC should assist the RE in reviewing the information and submitting NOC amendments to the RWQCB as needed.

Copies of the standard NOC form and the NOC – Desert Areas form are provided in Appendix A. The forms are also available on the Caltrans website (Appendix O).

### **3.3 Pre-Construction Meeting**

The CSWC, or a designated representative, should attend the pre-construction meeting to assist the RE in discussing the water pollution controls required for the project. The CSWC should assist the RE to ensure that a RWQCB representative is invited to the pre-construction meeting

as required by the SWMP. The invitation is usually sent via e-mail when the other attendees are invited. The District usually has a list of necessary attendees to which the RWQCB representative should be added. When the invitation is sent, it should be documented in the project files that the invitation was sent. Attendance at the pre-construction meeting is at the discretion of the RWQCB and should not affect the construction schedule. The requirement is not that a RWQCB representative attend the pre-construction meeting, only that an invitation be extended.

The pre-construction meeting should address a number of topics. A sample of an agenda used by the Storm Water Task Force assistance staff is provided in Appendix E. The CSWC should be prepared to give a short presentation covering the topics listed in the sample agenda, with the blanks filled in according to the project special provisions.

At the meeting, the schedule is reviewed. The project start date and clearing and grubbing operations or other soil disturbing activity start dates are noted. The CSWC identifies which of the project personnel will be inspecting the project site.

Information about other permits that govern the project should also be reviewed:

- If the project affects or is near an environmentally sensitive area (ESA), there may be special requirements for the area that should be discussed.
- Other plans and permits that may govern the project should be discussed.
- If the project is in or near a navigable water body, a Clean Water Act (CWA), Section 404 permit is required from the U.S. Army Corps of Engineers. The RWQCB may issue requirements for the project on such a permit through a CWA Section 401 certification.
- The California Department of Fish and Game Department may have issued a Streambed Alteration Agreement, 1601 Permit or 1603 Permit.
- If the construction project includes aerally deposited lead, a variance from the California Department of Toxic Substances Control may be required.
- If the project includes dewatering, coverage under a general RWQCB permit or site-specific NPDES permit may be required for the proposed discharge.

If any of these permits apply to the project, it is important to discuss them to ensure that the contractor understands how to comply with them. These State and Federal regulatory agencies, and the permits they issue, are described in more detail in Section 6.

Additional pre-construction meeting topics include:

- Contract Special Provision water pollution control requirements
- Conceptual SWPPP, if one was developed for the project by Caltrans
- Minimum requirements for the SWPPP
- Available project reports
- NOC

- Project plan details for construction of permanent BMPs that require post-construction maintenance
- Project plans or special provisions that may require specific temporary BMPs
- Contractor's recommendations to implement non-approved BMPs on a project, if any. The *BMPs Manual* states that Caltrans will consider non-approved BMPs subject to Headquarters approval. The CSWC should review the proposed BMPs before submitting the BMPs to Headquarters.

### 3.4 SWPPP/WPCP Review

The RE is responsible for reviewing and approving the project SWPPP/WPCP. The CSWC should assist the RE in reviewing the SWPPP/WPCP. The SWPPP/WPCP Preparation Manual should be used for conducting this review.

The contract special provisions normally reference the *SWPPP/WPCP Preparation Manual* for the required format and content of the SWPPP/WPCP. The *SWPPP/WPCP Preparation Manual* gives instructions for preparing each section of the SWPPP/WPCP. It details the required text and format. It also includes examples for some sections and provides guidance for modifying the content to address site-specific conditions.

REs typically submit the project SWPPP/WPCP to the CSWC for comment or approval. When reviewing the SWPPP/WPCP, the CSWC should make notes of the required revisions and should send them to the RE. The RE directs the contractor to make the required changes. The contractor is not allowed to begin potential pollutant causing activities until the SWPPP/WPCP is approved by the RE. While the revisions are being incorporated, the RE may allow the contractor to begin certain construction activities.

The CSWC should advise the RE to consider the following if approval for soil-disturbing activity is given prior to SWPPP/WPCP approval:

- Season (e.g., Is it the rainy season?)
- Location of the activity (e.g., Is it near a water body or drain inlet?)
- Potential for the activity to cause pollution (e.g., Are liquid materials to be used? Are the proposed activities near a water body or drain inlet?)
- Whether the required revisions to the SWPPP address the proposed activity (e.g., Are the accepted portions of the SWPPP/WPCP adequate for the activity? Does the SWPPP/WPCP include adequate BMPs for material delivery and storage?)
- Creek diversion requirements
- California Department of Fish and Game requirements
- Other permits and/or dewatering requirements
- Section 303(d) and non-visible pollutant sampling and analysis requirements

There are specific prohibitions that apply to certain geographical areas. For example, the *NPDES Permit for Discharges of Storm Water Runoff Associated with Construction Activity Involving*

*Land Disturbance in the Lake Tahoe Hydrologic Unit - El Dorado, Placer, and Alpine Counties* issued by the Lahontan RWQCB prohibits the removal of vegetation or disturbance of existing ground surface conditions between October 15 of any year and May 1 of the following year, except when there is an emergency situation that threatens the public health or welfare, or unless granted a variance by the RWQCB Executive Officer. This general RWQCB NPDES permit applies to the Lake Tahoe, Truckee River, East Fork Carson River, and West Fork Carson River Hydrologic Units and above the 5,000-foot elevation in the portions of Mono and Inyo Counties within the Lahontan Region. A copy of the permit is available on the Internet (Appendix O).

The CSWC should assist the RE in issuing a “conditional approval” of the SWPPP for certain activities based on the above considerations. The SWPPP/WPCP submittal and approval process is normally defined in the contract special provisions, including a timeframe for the contractor making the required revisions to the SWPPP/WPCP.

Site runoff and run-on calculations are required to be included in the SWPPP. The *SWPPP/WPCP Preparation Manual* includes detailed guidance for calculating these values, referring to the *Caltrans Highway Design Manual*, Topic 819, Figure 819.2A and Table 819.2B. These tables have been provided in Appendix R for ease of reference. It is important to check the Caltrans website (Appendix O) for updates to ensure that the most current tables are being used.

Amendments are changes to the SWPPP/WPCP after the SWPPP/WPCP is approved by the RE. Note that an amendment is not the same as a revision that is made prior to the RE’s initial approval of the document. Amendments may need to be made throughout the project to comply with applicable NPDES permits.

The RWQCB representative reviews the project files when inspecting a construction site. The contractor’s SWPPP is required to be available for review on site. Amendments to the SWPPP must be attached to the onsite SWPPP. Maintaining onsite project files with all amendments and site inspection reports is tangible evidence of the effort that is being made for water pollution control and permit compliance. RWQCBs have issued NOV’s when onsite SWPPP documentation has been found to be incomplete (missing amendments, etc.).

When the SWPPP/WPCP review demand is high, the CSWC may enlist consultant assistance to ensure adequate, timely review of the SWPPP/WPCP documents. Consultants can review SWPPPs/WPCPs, including Sampling and Analysis Plans (SAP) within a few days of receipt of the documents.

### **3.5 Site Inspections**

This section describes the responsibilities of the CSWC for the various storm water inspections that are required at construction sites. Independent site inspections are required to be conducted by the contractor, RE and consultant inspectors as part of the Caltrans storm water program.

#### **3.5.1 Contractor Inspections**

At a minimum, the contractor is required to inspect the construction site before, after and during rain events. The contract special provisions also require regular site inspections, normally

weekly, during the rainy season and biweekly outside the rainy season. The contractor is required to use the inspection checklist in the *SWPPP/WPCP Preparation Manual*, a copy of which is provided in Appendix C of this document.

The contractor is required to submit a written inspection report to the RE within 24 hours of the inspection. The CSWC should assist the RE in ensuring that the contractor inspections are conducted and documented. If contractor inspections are not documented, the CSWC should assist the RE in corresponding with the contractor to insist that inspections be conducted and documented. The CSWC should make sure that the RE is aware that copies of all contractor inspection reports are maintained with the project SWPPP/WPCP records.

### **3.5.2 Resident Engineer Inspections**

The RE is required to conduct inspections at the same frequency as the contractor; that is, before, after, and during rain events. Results of RE inspections should be forwarded to the contractor with direction for installing, maintaining or repairing BMPs as needed.

The RE may designate a SWPPP inspector to conduct the inspections for the RE. Desirable qualifications for the SWPPP inspector include construction inspection experience, overall project knowledge, landscape architect experience, hydraulics or environmental engineering experience, and SWPPP training. The CSWC should assist REs with their inspections and ensure that the RE-appointed SWPPP inspectors have been adequately trained.

For pre-storm inspections, the inspection should consider the following:

- Are the active areas limited to the maximum allowed during the rainy season under the contract special provisions or an expansion of the limit approved in writing by the RE?
- Are the required BMPs for soil stabilization, linear sediment control barriers, and desilting basins implemented for the active and non-active disturbed soil areas (DSAs) in compliance with the approved SWPPP/WPCP?
- Are proper BMPs in place to divert or convey water through or around the project site from upstream offsite areas?
- Has the drainage system been cleared and cleaned? Is it ready to convey storm water without adding pollutants, causing flooding that could cause erosion or contact with other pollutants, or causing a safety problem?
- Are the non-storm water BMPs, tracking control BMPs, and waste management and materials pollution control BMPs that were selected in the SWPPP/WPCP implemented properly?

During a rain event, the inspection should focus on the following:

- Is the selected combination of BMPs installed and functioning properly?
- Is there any flooding that could cause erosion, contact with other pollutants, or cause a traffic hazard?
- Is sampling required? Is the appropriate sampling being conducted in accordance with the SAP in the approved SWPPP?

- Can any BMPs be repaired or revised to correct any problems noted above under the site conditions?
- Do flow patterns match those on the Water Pollution Control Drawings (WPCDs) included in the approved SWPPP/WPCP? Are amendments required?
- Have discharges or potential discharges been documented and reported in accordance with the SWPPP/WPCP?

After a rain event, the inspection should document the following:

- Identify BMPs that have failed
- Identify BMPs that need maintenance, repair or replacement
- Identify areas that need different or additional BMPs

### 3.5.3 Consultant Compliance Inspections

Caltrans' storm water consultants include a team of inspectors that review Caltrans construction projects statewide for compliance with the Caltrans Statewide NPDES Permit and storm water program. Section 8.4.1 of the SWMP identifies the purpose of Construction Compliance Monitoring as the following:

- To evaluate compliance of construction projects statewide with the requirements of the Caltrans Statewide NPDES Permit
- To report compliance status to management
- To evaluate BMP implementation trends
- To suggest areas of improvement
- To identify new BMP implementation methodologies.

The consultant inspectors use inspection checklists based on the rainfall area, project type (SWPPP or WPCP) and season for the site. Rainfall areas, which are based on geographical location, elevation, and RWQCB jurisdiction, are defined in the *BMPs Manual*. The checklists as of August 2002 are included in Appendix C. As these are updated, the revisions are available from the consultant inspectors or the Headquarters Construction Division SWCs.

The compliance inspections result in a rating summarized below:

- |   |   |
|---|---|
| 0 | The project is substantially in compliance and is at or near completion. Further review is not required.  |
| 1 | The project is substantially in compliance but will be scheduled for a revisit because more intense construction activity is expected in the future. Revisit will be conducted in several weeks or at the beginning of the next cycle of inspections. |
| 2 | Minor deficiencies noted. Site revisit will be conducted during the next cycle of inspections.  |

- 3 Major deficiencies or discharge(s) noted that require prompt correction. A follow-up visit will be conducted within two weeks. District Storm Water Coordinator, District Management, and Headquarters personnel are notified.
- 4 Critical deficiencies or discharge(s) noted that require immediate correction. Revisit within one week. District Storm Water Coordinator, District Management, and Headquarters personnel are notified.

If a project receives a compliance inspection rating of 3 or 4, the CSWC must inspect the project before the consultant inspector revisits the project. As part of this inspection, the CSWC should photograph deficiencies and submit the photographs with a written report to the RE and the Senior Engineer. If a discharge or serious deficiency is noted, the CSWC will require a deficiency correction report from the RE. Refer to Section 3.8 for discharge notification and reporting requirements.

The CSWC should keep track of construction progress and keep in touch with the compliance inspection team to make sure that all projects are inspected with an adequate frequency. If the CSWC feels that certain projects are not being inspected with adequate frequency, the CSWC should request a change in the frequency or request compliance assistance. The CSWC may contact the consultant inspection team manager directly or communicate through the Headquarters Contract Coordinator to set up an assistance inspection.

#### **3.5.4 Consultant Assistance**

Storm water consultants conduct assistance reviews by request to assist REs with storm water pollution prevention compliance on their projects. The consultant team uses a standard checklist for conducting assistance inspections (Appendix J). The consultant conducting the assistance inspection should complete the form in its entirety and should discuss the results with the RE. A copy of the completed checklist should be given to the RE for use in directing the contractor.

The Compliance Assistance Program provides an onsite general overview of water pollution control requirements and more in-depth training related to specific project requirements. Compliance Assistance Program staff discuss methods for implementing, managing and monitoring water pollution control BMPs on site with the project REs, construction inspectors, and contractor staff.

Site-specific training is also offered under the Compliance Assistance Program, and is designed to educate groups of personnel about onsite water pollution control requirements. The program emphasizes real-world examples to introduce the participants to solutions for typical challenges observed in the field.

#### **3.5.5 CSWC Field Reviews**

The CSWC is required to conduct an inspection at least once a month of every SWPPP project ( $\geq 5$  acres soil disturbance) and every other month for WPCP projects, using the contractor or consultant inspector checklists.

The CSWC role should be proactive, when possible, rather than reactive. Conduct site visits before the rainy season or on a frequency to prevent storm water-related problems before they arise. The CSWC should track the projects in the District (as described in the Section 3.1) to track their project load and to identify the projects with the greatest potential for water pollution. Projects with a higher potential for water pollution should be given assistance to ensure that SWPPP requirements are implemented prior to the rainy season.

The CSWC should record the results of field reviews, including digital photographs to show the RE or contractor areas that need attention. A personal data assistant (PDA) with an electronic checklist or form for recording inspection results is preferred to eliminate errors that may occur when transferring paper results to electronic format. The PDA can be downloaded directly to a computer and e-mailed to appropriate persons (i.e., RE, contractor, other staff).

Based on the project load, the CSWC should enlist the assistance of the compliance assistance inspectors to review more sites prior to the rainy season.

### **3.5.6 Encroachment Permit Projects**

Normally, large encroachment permit projects are assigned to a Construction RE for oversight. The CSWC should assist the oversight engineer with these encroachment permit projects like any other Construction project. Other encroachment permit projects are the responsibility of the Encroachment Permit inspectors.

## **3.6 Maintenance Reviews**

Maintenance reviews are typically conducted as a project nears completion (approximately 90 percent complete). At this time, the Maintenance Manager, Superintendent, or Supervisor should review the project and create a punch list of tasks to be completed prior to closing the project. Often, this review is conducted with the safety review.

Some of the punch list items may not be the contractor's responsibility per the contract plans. The RE will have to approve any additional items, and in some cases approve additional funds, to complete this work. Sometimes the project plans cannot convey what needs to be done for post-construction maintenance. The CSWC should assist the RE in explaining what maintenance will be required and to prepare a punch list of items for the contractor to complete.

## **3.7 Annual Certification of Compliance**

The project Annual Certification of Compliance is usually completed in June per the specifications. The CSWC should send an e-mail reminder to REs in May identifying the projects that require the Annual Certification of Compliance to be completed by the contractor.

The RE should receive the Annual Certification of Compliance from the contractor no later than June 15. This allows sufficient time to review the certification prior to the July 15 deadline for final certification. The Annual Certification of Compliance form is provided in Appendix B of the *SWPPP/WPCP Preparation Manual*.

Upon receipt of the annual certification from the contractor, the RE needs to review and approve the certification. To approve the certification, the RE needs to verify that the project is in compliance with the project SWPPP and the applicable NPDES permits.

If the RE cannot approve the certification, the CSWC should assist him in filing a notice of discharge or other actions required to bring the project into compliance. The June 15 deadline for submittal of the Annual Certification of Compliance generally allows some time after the rainy season for many projects to come into compliance even if there were problems during the rainy season.

If the RE approves the annual certification, the RE files a copy in the Category 20 file and sends the approved original to the contractor. The contractor should file the approved certification with the onsite SWPPP.

An annual certification needs to be forwarded to the RWQCB only upon request from the Board, or when required specifically by that RWQCB. The CSWC should ensure that the certifications are properly filed for projects within their District.

### **3.8 Notice of Discharge/Non-Compliance**

The NPDES permits and SWMP define the discharges and non-compliant events that require notification to the RWQCB. Unless otherwise indicated in a RWP, the District NPDES SWC is responsible for making non-compliance and discharge reports to the RWQCB Executive Officer or designee. The RE and CSWC are responsible for providing the information to the NPDES SWC so that the required notification can be made.

Not all discharges from construction activities require RWQCB notification. Some discharges or non-compliant events require immediate reporting upon discovery (Section 3.8.1), while others require notification within 48 hours, five days, or 30 days. The CSWC should assist the RE to recognize the discharges and non-compliant events that require notification and the timeframe by which notification is required to ensure timely reporting to the RWQCB.

When a discharge/non-compliant event is discovered, the RE notifies the CSWC verbally. The RE follows up the verbal notification with a detailed written report from the contractor using the Notice of Discharge/Non-Compliance included in the *SWPPP/WPCP Preparation Manual* and in Appendix B of this document. The CSWC forwards the information to the District NPDES SWC, who is responsible for ensuring that the notice is submitted to the RWQCB.

The CSWC should assist the RE to provide the required information for initial notification and for follow-up as required by the District NPDES SWC or RWQCB. At any time communication is required with the RWQCB, either verbally or in writing, the communication must go through the District NPDES SWC.

### 3.8.1 Immediate (24-Hour) Reporting

For the following discharges or events at SWPPP sites, the SWMP requires immediate reporting (no later than 24 hours after discovery of the incident with written follow-up within 24 hours):

- a) Discharges of permitted storm water and non-storm water that violate or threaten to violate prohibitions, limitations and conditions of the permit and which may endanger health or the environment. Examples of violations are:
  - excessive erosion to stream banks or beds
  - discharges that result in excessive sedimentation to the stream or water body
  - discharges of hazardous materials or waste or toxic materials
  - discharges with strong and/or lingering odors
  - discharges that cause high turbidity
  - discharges that show evidence of pollutant plume, and
  - discharges that result in mortality of fish or aquatic species.
- b) Discharges of prohibited non-storm water discharges that may endanger health or the environment
- c) Discharges of spills of petroleum products, hazardous materials or wastes, and toxic chemicals; and
- d) Failure or serious damage to BMP control facilities that results in a system bypass or short circuiting causing a discharge that meets the characteristics of an example violation in a) above that may endanger health or the environment.

The CSWC should act as the liaison between the District NPDES SWC/RWQCB and the RE to ensure that follow-up monitoring of major spills and/or confirmation sampling is conducted as required by the RWQCB.

### 3.8.2 Five-Day Reporting

Some conditions at SWPPP construction sites require notification to the RWQCB within five working days of the discovery of the event, with written follow-up within 30 days. The conditions that would require this type of reporting are:

- Discharges of non-storm water that are not authorized nor exempt by the Caltrans Statewide NPDES Permit or any other NPDES permit and do not result in serious violations of the State Water Code listed in bullet a) above under immediate notification requirements
- Discharges that result in violations of narrative and numeric prohibitions and limitations of the permit
- Discharge that violates requirements of the CWA 404 permits and 401 certifications (see Section 6 for more discussion of CWA 401 and 404 requirements)

- Discharges that result in violations of narrative and numeric standards and requirements specified in RWQCB Basin Plans and Statewide Water Quality Plans
- Discharges from BMP control facilities that have failed or are seriously damaged and the discharges do not result in serious violations to permit requirements, or
- Failure to submit documents or materials in accordance with the permit or SWMP

### **3.8.3 48-Hour Reporting**

A third category for non-compliant reporting on SWPPP projects requires initial RWQCB notification as soon as possible (but within 48 hours), with follow-up reporting within 14 days. This reporting requirement applies in the event that runoff from the construction site is determined to be causing or contributing to exceedances of water quality standards.

The CSWC should assist the RE in determining whether runoff or discharges are causing or contributing to the exceedances of water quality standards. Water quality standards are normally found in the Basin Plan for the RWQCB. Water quality standards may be difficult to interpret. Many Basin Plan water quality standards are narrative and do not have a numeric limit that applies. The CSWC should consult with the District NPDES SWC for assistance in this area.

### **3.8.4 30-Day Reporting**

Written reports must be submitted to the RWQCB within 30 days for the following conditions on SWPPP construction sites:

- The site cannot be certified in accordance with the annual certification requirements in the General Permit (Section 3.7).
- All other incidents of non-compliance not reported under the 48-hour requirement or other reporting requirements described above.

## **3.9 Rainy Season Reminders**

Rainy season dates dependent on the geographical location of the construction project. For each project, the CSWC needs to review the project water pollution control details as the summer season winds down to identify the BMPs required for the rainy season. The CSWC should contact the RE or designated SWPPP inspector on the project and remind them to do the following.

- Determine the total amount of disturbed soil area (DSA) and identify those areas that can be stabilized to reduce the total DSAs to that allowed by the SSPs.
- Classify all DSAs as either active or non-active. Areas identified as non-active are those that will be idle for at least 21 days.
- Identify the DSAs requiring soil stabilization and sediment controls.
- Verify the presence and condition of the active drainage systems.
- Assess the placement of BMPs required to control offsite storm water run-on.
- Evaluate the BMPs for material and waste storage in the contractor's yard.

- Identify completed or near-completed DSAs and implement required protection.
- Install/schedule final erosion control on completed areas per the contract plans and special provisions.
- Clean active drainage systems of debris and other obstructions prior to a rain event.
- Implement tracking control, wind erosion control, and non-storm water management controls required for the rainy season.
- Ensure that sufficient supplies of soil stabilization and sediment control materials are on hand to protect the site in the event of rain.
- Amend the SWPPP/WPCP to meet site conditions of the project, if needed.

The CSWC should send a Rainy Season Reminder e-mail to all projects in the District about one to two months prior to the onset of the rainy season. The communication should remind the RE to ensure that the required combination of temporary soil stabilization and sediment barriers, as defined in *BMPs Manual* are implemented by the contractor. Appendix H has an example of a rainy season reminder.

### 3.10 Rain Storm Alerts

The contractor is required to monitor weather per the following requirement in SSP 07-345:

“The National Weather Service weather forecast shall be monitored and used by the Contractor on a daily basis. An alternative weather forecast proposed by the Contractor may be used if approved by the Engineer.”

This special provision requires the contractor to use the National Weather Service forecast (or an approved equivalent) on a daily basis and implement all necessary control measures if precipitation is predicted. The National Weather Service is available on the Internet (Appendix O).

The contract special provisions normally do not specify a percentage chance of rain that would indicate a forecasted storm event. For a general alert, most CSWCs use a 20% to 35% chance of rain before issuing an alert. For a 35% to 50% chance of rain of 0.2 inches or greater, a special alert should be given to mobilize for pre-storm inspections and sampling, as specified in the SWPPP.

The CSWC should monitor the weather forecasts using the same weather service or equivalent. When a storm event is forecast, the CSWC should alert the REs as to the chance of rain and the area where the rain is expected. The RE should also be reminded to direct the contractor to implement pre-rain event requirements. At a minimum, this would include the minimum combination of BMPs from the tables in the *BMPs Manual*. An example rain storm alert is included in Appendix I.

The CSWC should assist the RE to determine if the contractor’s planned work is compatible with the 5 to 10-day forecast and if Caltrans project staff inspections will be required (pre-, post- and during storm). The RE should also notify the contractor of pending weather and of any

deficiencies that require attention. The RE may also use a printout of the day's weather forecast to justify the total rain days allowed for the contractor in accordance with the contract special provisions.

An alternative to monitoring the National Weather Service for rain storm alerts, is to monitor the Weather Channel on television or via the Internet (Appendix O). The Weather Channel website has been reliable for some District CSWCs. It provides 10-day forecasts for a city or zip code. The website also offers free automatic e-mail or pager notification in the event that rain or severe weather is forecast. The CSWC should send 10-day forecasts via e-mail to REs and other field staff.

### **3.11 Notice of Completion of Construction (NOCC)**

Caltrans is required to submit a Notice of Completion of Construction (NOCC) to the RWQCB for SWPPP projects once the construction and final stabilization are complete (see the SWMP, Section 4.5, page 4-15). An NOCC is not required to be submitted for WPCP projects.

A copy of the NOCC with instructions is provided in Appendix A. The most current revision of the form is also available at the Caltrans Electronic Forms System (CEFS) website (Appendix O).

#### **3.11.1 Who Should File**

Typically, the RE is responsible for submitting the NOCC to the RWQCB. However, this responsibility may be given to the District NPDES SWC or a designee. Prior to submittal, the NOCC should be reviewed with the CSWC and a representative from Maintenance (CPB-00-1 April 13, 2000).

If the NOCC is the RE's responsibility, the CSWC should assist the RE to ensure that the NOCC is filled out correctly, submitted to the appropriate RWQCB office, and filed in the proper section of the SWPPP and project files.

#### **3.11.2 When To File**

The NCC should be filed when the RE accepts the project from the contractor. If another project is to follow the completed project at the same location, that should be noted under the Description of Completion (Section V) of the NOCC so that the RWQCB staff are aware that any additional construction is a separate project.

A project is considered complete when construction is complete and the requirements for final stabilization have been met. The Statewide Construction NPDES Permit defines final stabilization as complete when an established uniform vegetative cover of 70 percent of native background vegetation cover or equivalent stabilization measure is established.

The CSWC should assist the RE to ensure that final stabilization requirements have been met prior to accepting the contract. The NOCC provides four options for declaring that final stabilization is complete. Only one of the four options has to be selected.

The first option is notification that construction is complete and final stabilization requirements have been met as of a specified date. To qualify, the following requirements must be met:

- All elements of the SWPPP have been completed,
- Construction materials and equipment maintenance waste have been disposed of properly,
- Final stabilization requirements have been met (as described above), and
- The post-construction storm water operation and management plan is in place.

The other choices for basis of completion on the NOCC are: (2) suspended work, (3) the site cannot discharge storm water to waters of the U.S. for a specified reason, and (4) the discharge is now regulated under a different NPDES permit.

Until all requirements for completion are met, the project must maintain compliance with the SWPPP:

- SWPPP must remain on the construction site during working hours
- Site inspections must be conducted prior to, during and after storm events
- Annual certification of compliance must be submitted
- Non-compliance reporting must continue
- Inspection records, compliance certifications and non-compliance reports must be maintained on site; and
- Records must be retained for three years from the date they were generated.

### **3.11.3 Where To File**

The NOCC is submitted to the Executive Officer of the RWQCB responsible for the area, or areas, in which the project is located. For projects located within the jurisdiction of the Central Valley RWQCB or Lahontan RWQCB, the NOCC is submitted to the appropriate RWQCB office within that region (north office, south office, etc.).

## **3.12 Project Closeout**

Once the final inspection of a construction project is completed, the contract is formally accepted and upkeep of the newly constructed areas is turned over to the Caltrans Maintenance Department. For water pollution control, the Maintenance Program must continue to maintain erosion controls and manage the drainage facilities and water pollution control devices.

The conditions required for termination of NPDES permit coverage (as described in Section 3.11) may not be met simultaneously with Relief Maintenance and Responsibility, Acceptance of Contract or Temporary Suspension of Work. A joint review with involved parties, such as the contractor, Landscape and Design staff, and particularly Environmental and Maintenance staff, is recommended prior to Acceptance of Contract.

Conditions for accepting the contract should include:

- Compliance with NPDES permit requirements
- Compliance with local storm water management requirements
- Proper construction of permanent BMPs
- Proper disposal of construction materials and wastes
- Review and discussion of operations of the facilities and the features that require special attention
- Identification of work that may be required after contract acceptance with notification to the applicable Caltrans personnel
- Evaluation of vegetated areas that are not fully established for continued sediment control protection; identification of the responsible party for maintaining the controls (Maintenance or contractor). Future contracts may include special provisions for water pollution control establishment periods that require the contractor to inspect and maintain erosion control measures during the establishment period.
- Verification that temporary BMPs that cannot be removed (because they are still needed for sediment and erosion control) are left in good condition. Maintenance personnel should be fully informed of maintenance responsibilities for these BMPs.
- Verification that drainage facilities and structural controls are in good working order and clear of excess sediment and debris that could potentially inhibit flow or pollute downstream waters
- Review of permanent drainage systems to identify future maintenance needs.

### **3.13 Project Termination**

Caltrans Standard Specification 8-1.08 refers to termination of the contractor's control of work on a project. Reasons for termination of control include the failure to supply an adequate working force or material of proper quality, failure to prosecute the work with the diligence and force specified by the contract, or abandonment of the project by the contractor. The State, through day labor, informed contract, or surety, will arrange for the completion of terminated projects.

The level of management required for water pollution control on terminated projects will depend on the construction schedule, level of construction activity, and time of the year when termination occurs. Typical water pollution control challenges that may be encountered on terminated projects include:

- DSAs left exposed in the rainy season
- Missing sediment controls, or BMPs in need of maintenance
- Sediment-laden runoff entering a storm drain system or water body
- Improper solid waste management on the site
- Discharge of trash, debris, and pollutants from the site to storm drains; flooding from blocked or plugged storm drains

- Improper storage of chemicals or petroleum products within the Caltrans right-of-way.
- Discharge of pollutants from storage areas to a storm a drain system or water body
- Oil/fuel spills from leaking equipment, fueling and maintenance activities, or improper material containment
- Discharge of contaminated sediment or pollutants to a storm drain system or water body.

If a significant delay is anticipated before a new contractor is in place, the CSWC should assist the RE to coordinate with the local Maintenance Supervisor to perform any work that is necessary to comply with the NPDES permit and to ensure public safety. The CSWC should also assist the RE with communications with Headquarters Construction and Maintenance and the Maintenance Supervisor to ensure permit compliance.

Once a new contractor is in place to take control of the work, the CSWC should assist the RE to conduct a review of the site with the new contractor representative to discuss water pollution control requirements and issues on the project. If appropriate, the CSWC and RE can submit a punch list of deficiencies that require immediate attention.



## 4.0 Technical Assistance

### 4.1 BMP Troubleshooting

It is important to troubleshoot storm water BMPs in the field during site inspections. The best way to troubleshoot a BMP is to compare the implementation in the field with the construction details in the *BMPs Manual*. Caltrans has developed the *Construction Site Best Management Practice (BMP) Field Manual and Troubleshooting Guide* that includes troubleshooting points for most BMPs. It identifies the most common problems and solutions with photographs that illustrate good and bad installations where available. The *BMP Field Guide* is a handy “idea toolbox” printed in a reduced size for field use. It is also available on the Caltrans Internet website (Appendix O).

The following sections offer specific guidance for evaluating soil stabilization BMPs, sediment control BMPs, and temporary containment for materials and waste.

#### 4.1.1 Soil Stabilization

The *BMPs Manual* (November 2000) includes tables that identify the minimum combination of temporary soil stabilization and temporary linear sediment barriers that are required for a project based on rainfall area, season, DSA status (active vs. non-active), and slope characteristics. These tables have been revised and will be incorporated into the next revision of the *BMPs Manual*. Copies of the tables are provided in Appendix K of this document.

In the *BMPs Manual*, Table 2-1 divides the state into Rainfall Areas based on geographical location, elevation and RWQCB jurisdiction. Using the Rainfall Area, Table 2-2 identifies the BMPs required for non-active DSAs for the rainy and non-rainy seasons. Similarly, Table 2-3 identifies the BMPs required for active DSAs during the rainy and non-rainy seasons.

Refer to the *BMPs Manual*, Section 2.1.2, for the definitions of Active and Non-Active DSA. Generally, active areas are where soil has been disturbed and will occur during the next 21 days. Non-active areas are formerly active areas that will be idle for at least 21 days. Note that the contract special provisions may include different definitions of active areas for the specific site.

For each site, the CSWC should assist the RE with identifying the combination of temporary soil stabilization and sediment barriers required for the project. Once determined, the minimum soil stabilization requirements should be summarized in an easy-to-read format such as the following and the requirements incorporated into the SWPPP/WPCP.

#### Rainfall Area 1 Soil Stabilization Requirements:

Season	Non-active Length; Inclination (V:H)	Active Length; Inclination (V:H)
Rainy	All lengths; <1:20	>3m; >1:20
Non-Rainy	All lengths; <1:20	None

If the SWPPP/WPCP does not include these requirements, the CSWC should recommend that the RE direct the contractor to amend (if already approved) or revise (if still under initial review) the SWPPP/WPCP. Once incorporated into the SWPPP/WPCP, the tables should be used when conducting a site inspection.

The tables do not direct the Contractor to implement specific BMPs. If required to implement soil stabilization, the contractor can elect to use one or more of the soil stabilization BMPs selected in the SWPPP to meet the requirement.

#### 4.1.2 Sediment Controls/Linear Barriers

Temporary sediment control practices include those that intercept and slow or detain the flow of storm water to allow sediment to settle, and be trapped. Temporary sediment control practices consist of installing linear sediment barriers (such as silt fence, sandbag barrier, straw bale barrier, and fiber roll barrier); constructing a temporary desilting basin, sediment trap, or check dam; or sweeping and vacuuming. Linear sediment barriers are typically placed below the toe of exposed and erodible slopes, down slope of exposed soil areas, around temporary soil stockpiles, and at other appropriate locations along the site perimeter.

The tables in the *BMPs Manual* described in Section 4.1.1 also identify required sediment controls/linear barriers by Rainfall Area, season, DSA status, and slope characteristic. As with the soil stabilization requirements, for each site, the CSWC should assist the RE to identify the required combination of temporary sediment controls/linear barriers and desilting basins for the project and incorporate them into the SWPPP/WPCP in a easy-to-read summary, such as the following:

##### Rainfall Area 4 Sediment Barrier requirements:

Season	Non-active Length; Inclination (V:H)	Active Length; Inclination (V:H)
Rainy	>3m; >1:20	>3m; >1:20
Non-Rainy	None	None

##### Rainfall Area 4 Desilting Basin requirements:

Season	Non-active Length; Inclination (V:H)	Active Length; Inclination (V:H)
Rainy	None	>3m; >1:2
Non-Rainy	None	None

Again, the tables do not direct the contractor to implement specific BMPs. If required to implement sediment controls/linear barriers, the contractor can elect to use one or more of the sediment control BMPs selected in the approved SWPPP.

For desilting basins, Caltrans has a basin sizing tool available on the Environmental Storm Water website (Appendix O). This tool can be used to design a basin to handle the expected load or to check the contractor's design. Basins with an impounding levee greater than 1.5 m tall and

basins capable of impounding more than 1,000 cubic meters shall be designed by a professional Civil Engineer registered with the state of California.

#### **4.1.3 Temporary (Secondary) Containment for Materials and Waste**

Waste management and materials pollution controls consist of implementing procedural and structural BMPs for handling, storing, using, and disposing of construction materials and waste to prevent their release into storm water discharges. The objective is to reduce the opportunity for rainfall to be exposed to these materials. The BMPs that address materials and waste handling include:

- WM-1 Material Delivery and Storage
- WM-2 Material Use
- WM-3 Stockpile Management
- WM-4 Spill Prevention and Control
- WM-5 Solid Waste Management
- WM-6 Hazardous Waste Management
- WM-7 Contaminated Soil Management
- WM-8 Concrete Waste Management
- WM-9 Sanitary/Septic Waste management
- WM-10 Liquid Waste Management

These BMPs are implemented at all construction sites with delivery and storage of the following:

- Soil
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease
- Asphalt and concrete components
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Temporary containment (secondary containment) is required for storage, preparation, and mixing of liquids, petroleum products, and substances listed in 40 Code of Federal Regulations (CFR) Parts 110, 117, or 302.

For example, 40 CFR, Part 110 addresses the discharge of oil. The regulation does not list individual substances as such, but does define oil as “oil of any kind or in any form, including,

but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.” In 40 CFR, Parts 117 and 302, hazardous substances under the Comprehensive Environmental Response and Compensation and Liability Act (CERCLA) are listed. The list of CERCLA hazardous substances and their reportable quantities are included in Appendix L of this document.

Temporary containment is required to provide a spill containment volume able to contain precipitation from a 24-hour, 25-year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary. Temporary containment must be impervious to the materials stored there for a minimum contact time of 72 hours.

Temporary containment facilities are to be maintained free of accumulated rainfall and spills. In the event of spills or leaks, accumulated rain water and spills are to be placed into drums after each rainfall and are to be handled as hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids are to be sent to an approved disposal site.

Throughout the rainy season, temporary containment facilities must be covered during non-working days and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs. Unless watertight, containers of dry waste are to be stored on pallets.

Sampling and analysis for visually non-detectable pollutants may be required unless materials are stored under watertight conditions. A material stored indoors or covered in a proper temporary containment area may meet the definition of watertight condition if rain is prevented from contacting or running on to the materials, and if the materials do not have the potential to leave the containment area.

## **4.2 Sampling and Analysis Plans (SAPs)**

The *Modifications to the Statewide Construction NPDES Permit* require sampling and analysis of SWPPP construction site runoff under certain conditions. Caltrans has developed sample plans that can be used to amend SWPPPs or include in new SWPPPs for the required sampling and analysis plans (SAPs). Copies of the sample SAPs have been provided in Appendix D of this document. These samples can also be downloaded as electronic templates from the Caltrans Construction website (Appendix O).

Generally, a SAP is required for every SWPPP project that has the potential to discharge non-visually detectable pollutants. Caltrans has determined that every SWPPP project must amend their SWPPP to incorporate a SAP for this reason. Caltrans Construction issued a Construction Program Directive (CPD 01-07) that describes the necessary changes. The CPD lists procedures for determining what revisions are necessary for ongoing projects and guidance for preparing the CCO to pay for the SWPPP amendment and implementation of the SAP. The CPD is available on the Caltrans Internet website (Appendix O).

A SAP is also required for projects that directly discharge to water bodies listed as impaired under the CWA Section 303(d) for sediment or turbidity. CWA Section 303(d) impaired water

bodies are listed at the end of the *Statewide Construction NPDES Permit* and are attached in Appendix N of this document. The Caltrans website has a Water Quality Planning Tool that is useful for locating downstream water bodies and 303(d) listed water bodies in relation to the site.

Caltrans has also developed a Pollutant Testing Guidance Table. The table lists categories of pollutant sources, construction site materials, whether they are visually detectable, pollutant indicators, and suggested analyses for testing for the presence of the pollutant. This table should be used in conjunction with the sample SAPs to develop or evaluate the SAP of the SWPPP. Although the table identifies total petroleum hydrocarbons (TPH) and antifreeze as non-visually detectable substances (and therefore not subject to the sampling and analysis requirement), some Districts require sampling for (TPH) and antifreeze because they feel that these are visually detectable. The CSWC should check with the District NPDES SWC for the necessity of sampling for these compounds.

This Pollutant Testing Guidance Table will be updated periodically as more information is available. The Pollutant Testing Guidance Table (dated February 19, 2002) is included as Appendix D and is available on the Internet (Appendix O).

The CSWC should request assistance from the consultant storm water team when reviewing SAPs when the workload necessitates. The consultant storm water team can assist CSWCs with reviews of SAPs and can normally comment within a few days. To request assistance from the consultant storm water team, contact the Headquarters Construction Division SWC.

The contractor is generally responsible for conducting the sampling as required in the SAP. However, the CSWC should assist the RE in determining whether the required sampling has been conducted. Many of the required sampling parameters can be easily measured in the field. The CSWC should have a field measuring kit that measures pH and conductivity. If the contractor does not collect the required samples, the CSWC can assist the RE by collecting samples and analyzing them in the field for pH, temperature, turbidity, and conductivity. Caltrans has not approved field analyses for other parameters at the time of this printing.

If field measurements are collected, the instrument needs to be calibrated prior to measuring, in accordance with the manufacturer's specifications. The calibration and measurement data must be documented.

### **4.3 Contract Change Orders (CCOs) and Claims**

Most Caltrans construction projects include a lump sum for SWPPP implementation. A SWPPP requires a Schedule of Values that itemizes the BMPs selected by the contractor in the SWPPP that were not listed and paid for as a separate bid items of work. A Schedule of Values is not required for a WPCP.

The Schedule of Values lists the selected BMPs, the estimated quantity of the BMP (units such as each, linear feet, etc.), cost per unit, and total cost for each BMP. When the costs for each of the itemized BMPs is added up, the total should equal the lump sum figure that the contractor included in the bid. It is the contractor's responsibility to estimate the quantity and unit cost of

the selected BMPs. One purpose of the Schedule of Values is to ensure that the contractor has considered the quantity and cost of the selected BMPs.

Standard Special Provision 07-345 states that the contractor is responsible for the accuracy of the quantities and values used in the cost-breakdown (schedule of values) of the lump sum figure in his contract. This provision also states that no adjustment in compensation will be made in the contract lump sum price paid for water pollution control due to differences between the quantities shown in the approved cost break-down and the quantities required to complete the work as shown on the approved SWPPP. No adjustment will be made for ordered changes to correct SWPPP work resulting from the contractor's own operations or from the contractor's negligence.

NPDES permit requirements change over time and Caltrans projects may have to issue Contract Change Orders (CCOs) to pay for the cost of amending the SWPPP and/or implementing new requirements. For example, in 1999 the *Caltrans Statewide NPDES Permit* was adopted and in 2001 the *Modifications to the Statewide Construction NPDES Permit* were issued by the SWRCB. Caltrans required amendments to existing SWPPPs to incorporate new requirements resulting from these permits.

CPD 00-12 describes the required changes, lists the procedures for evaluating ongoing project SWPPPs for required changes, and provides guidance for preparing a CCO to implement the required revisions. A CCO was required for all ongoing SWPPP projects that had special provisions requiring the use of the *Caltrans Storm Water Quality Handbooks Contractors Guide and Specifications*, dated 1997. The CSWC should assist REs if it is necessary to issue a CCO related to water pollution control requirements.

The 2000 *Caltrans Storm Water Quality Handbooks*, including the *SWPPP/WPCP Preparation Manual*, incorporate the necessary changes to the SWPPP. If a SWPPP was prepared in accordance with the 2000 manuals, no CCO should be necessary to bring the SWPPP into compliance with the 1999 *Caltrans Statewide NPDES Permit*. A separate CPD was issued to provide guidance for incorporating the SAPs required by the *Modifications to the Statewide Construction NPDES Permit* as described in Section 4.2.

If requested by the contractor and approved by the RE, changes to the water pollution control practices listed in the approved cost break-down, including the addition of new water pollution control practices, will be allowed. The changes shall be included in an approved amendment to the SWPPP. If the changes to the water pollution control practices requested by the contractor would result in a net cost increase to the lump sum price for water pollution control, an adjustment in compensation will be made without change to the item of water pollution control. The net cost increase to the item of water pollution control resulting from changes requested by the contractor will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications, "Extra Work."

SSP 07-345, Water Pollution Control, states the following:

“The approved cost break-down will be used to determine partial payments during the progress of the work and as the basis for

calculating the adjustment in compensation for the item of water pollution control due to increases or decreases of quantities ordered by the Engineer. When an ordered change increases or decreases the quantities of an approved cost break-down item, the adjustment in compensation will be determined in the same manner specified for increases and decreases in the quantity of a contract item of work in conformance with the provisions in Section 4-1.03B of the Standard Specifications, "Increased or Decreased Quantities." If an ordered change requires a new item not on the approved cost break-down, the adjustment in compensation will be determined in the same manner specified for extra work in conformance with Section 4-1.03D of the Standard Specifications, "Extra Work."

Unless Caltrans changes the scope of the project, the contractor should implement the project in accordance with the approved SWPPP without need for a CCO. If the contractor underestimated the BMP quantities or unit costs, the SWPPP should be amended in accordance with the *SWPPP/WPCP Preparation Manual*. However, site-specific conditions may require Caltrans to issue a CCO for additional BMPs. For example, a storm event may occur that exceeds the design parameters of an approved BMP.

#### 4.4 Training

One of the responsibilities of the CSWC is training. The CSWC assists the RE by arranging for training or conducting training for the Construction field staff. Headquarters has developed several storm water training courses for Construction personnel, including the most recent course offerings:

- Water Pollution Control Compliance on Construction Sites for Resident Engineers
- Inspecting for Water Pollution Control on Construction Sites
- Management of Construction Site Dewatering Operations
- Water Quality Sampling and Analysis on Construction Sites

In addition to these formal training courses, the CSWC should provide informal field training on a site-specific as-needed basis. When conducting a site inspection or assistance review, informal training should be a constant partner. Field training is especially necessary for inexperienced SWPPP inspectors or REs, for projects in high risk areas defined in the RWPs, and for projects with a high potential for water pollution. The Caltrans Construction website has more information on the Caltrans Construction Storm Water Training Program for Caltrans staff and construction contractors (Appendix O).

There are also annual RE meetings at which storm water issues are discussed. These meetings are described in Section 2.9.8.

## 4.5 Erosion Control Products and Application

The *BMPs Manual* includes working details for approved procedures for application of the following soil stabilization BMPs:

- SS-3 Hydraulic Mulch
- SS-4 Hydroseeding
- SS-5 Soil Binders
- SS-6 Straw Mulch
- SS-8 Wood Mulching

These BMPs reference the applicable section of the Standard Specifications that address specific soil stabilization products:

- |         |  |
|---------|--|
| 20-2.10 | Seed: Addresses proper seed labeling, testing and information requirements for hydroseeding. A seed type with a germination rate lower than the minimum rate specified may be used when approved by the RE in writing. |
| 20-2.07 | Fiber: Addresses acceptable fiber materials for hydraulic mulch, including water-holding capacity, mixing capabilities, coloring, and compliance.  |
| 20-2.11 | Stabilizing Emulsion: Addresses required consistency, performance and certification for soil binders.  |
| 20-2.06 | Straw: Addresses required straw composition, clearance and certification requirements for straw mulch.   |
| 20-2.08 | Mulch: Addresses mulch consistency, size, prohibitions, and certification for wood mulching.   |

The BMPs generally limit the application window for soil stabilization products prior to a rain event because products usually require time to dry, cure or set up before they become effective. Although some soil binders are advertised as needing a minimum curing time of between 0 and 24 hours, these products usually need to be applied to a dry surface for proper functioning. For example, SS-5 prohibits the application of soil binders while it is raining, or immediately before a rain event, to prevent the materials from washing off the slope before they have time to properly set up.

Implementation of SS-7, Geotextiles, Mats, Plastic Covers and Erosion Control Blankets, may be necessary when other soil stabilization BMPs cannot be installed in time for a rain event. BMP SS-7 may also be implemented during a rain event if there is a BMP failure.

The CSWC should assist the RE prior to a rain event to ensure that the contractor is implementing the soil stabilization selected in his approved SWPPP. If the selected soil stabilization BMPs are not adequate, the CSWC should recommend to the RE that the contractor be directed to amend the SWPPP to select alternate BMPs, or combinations of BMPs, that will be adequate. For example, if the contractor has selected straw mulch as the only BMP for soil stabilization, and the vendor is overburdened during the rainy season and cannot make it to the

site in time, the SWPPP should be amended to include another BMP, such as plastic sheeting, that can be implemented prior to the rain event.

General application rates for erosion control products are as follows:

<b>Approximate Application Rates for Typical Projects (lbs./acre)*</b>			
<b>Product</b>	<b>Minimum</b>	<b>Moderate</b>	<b>Maximum</b>
Hydromulch	1600-2000	500	500
Straw	4000	4000	5000
Tackifier	100	150	200
Bonded Fiber Matrix (BFM)	--	3000	4000

\*Source: Pacific Coast Seed, Inc.

## 4.6 Dewatering

The *Field Guide to Construction Site Dewatering (Dewatering Guide)* was published in October 2001 to establish uniform policies and guidelines to support dewatering operations on construction sites. It provides the information necessary to manage dewatering operations on construction sites to maintain compliance with Federal and State water quality protection regulations. The *Dewatering Guide* summarizes RWQCB general NPDES permit requirements for typical dewatering operations by Caltrans District. (A map showing the boundaries of the RWQCBs and the Caltrans Districts is included in Appendix P of this document.) The *Dewatering Guide* is available on the Caltrans website (Appendix O). The *Dewatering Guide* addresses the following options for managing dewatering operations:

- Managing dewatering effluent without discharge to a water body or drainage system
- Discharge of effluent to adjacent land or facility owned by others by agreement between Caltrans and adjacent land or facility owners
- Discharge of effluent to a sanitary sewer by agreement with the appropriate agency
- Removal and disposal of collected water by an approved commercial transportation, storage and disposal (TSD) contractor and facility
- Discharge to a storm drain or water body under the *Caltrans Statewide NPDES Permit* and in accordance with NS-2, Dewatering Operations, for the following types of effluent:
  - Accumulated precipitation in all areas other than RWQCBs 1 and 2
  - Non-storm water in RWQCBs 3, 5 and 7 having a volume less than 250,000 gallons per day (gpd) and a duration of four months or less
  - Groundwater in RWQCB 9 to a surface water other than San Diego Bay (or a tributary or conveyance thereto) having a volume of less than 100,000 gpd that does not contain pollutants
- Discharge of effluent to a storm drain or water body under a RWQCB general or site-specific NPDES permit

The CSWC should be informed if there is any construction dewatering on a project. The CSWC should use the *Dewatering Guide* to assist the RE in ensuring that the contractor complies with requirements. Many contracts do not address dewatering because there is no work in or near a water body, and groundwater is not near the surface and is not expected to be encountered during construction. However, dewatering of accumulated rainwater also requires compliance with the *Dewatering Guide* and NS-2. If the SWPPP/WPCP does not include NS-2, Dewatering Operations, assist the RE to direct the contractor to amend the SWPPP to include the BMP in the event of unplanned dewatering.

If a dewatering operation is conducted under a RWQCB NPDES permit, the permit identifies a monitoring and reporting program for sampling and analysis of the dewatering effluent and the receiving water. Normally, the contractor will be required to conduct the required sampling and analysis for dewatering operations; however, the CSWC may conduct the sampling. Although sampling and analysis requirements vary, temperature must be measured in the field and is usually a required parameter for dewatering analysis. The CSWC should have a field instrument to measure temperature. If used, the temperature meter must be calibrated in accordance with the manufacturer's specifications and the calibration and field measurement data must be documented. Any additional analyses should be conducted by an approved laboratory. The analytical parameters will be specified in the dewatering permit.

#### 4.7 Landscape Concerns

The District Landscape Architect should be consulted for landscape concerns that could potentially affect water pollution control, as appropriate. The CSWC should act as a liaison between the RE and the Landscape Architect when a landscape concern at a project could affect water pollution control.

One potential landscape concern is the selection of a proper seed mix where the final stabilization for a slope is vegetation. The SSPs state that seed with less than the specified purity or germination may be used under the following conditions:

- The contractor increases the application rate for the seed to compensate for the less than specified purity or germination.
- The contractor submits the purity and germination percentages, and the proposed increased application rate for the seed to the RE prior to use.
- The RE approves use of the seed and the increased application rate in writing prior to application.
- The additional seed required because of the increased application rate is furnished and applied at the contractor's expense.

The CSWC can use the following Pure Live Seed (PLS) formulas to assist the RE in ensuring proper coverage:

$$\begin{aligned}\% \text{ purity} \times \% \text{ germination} &= \% \text{ PLS} \\ \text{PLS weight needed} &= \text{bulk weight} \times \text{PLS Seed mix}\end{aligned}$$



## 5.0 Reporting

Provision E.1 of the *Caltrans Statewide NPDES Permit* requires Caltrans to review the SWMP annually and to revise it as necessary to maintain an effective program. Revisions to the SWMP are submitted as part of the Annual Report to the SWRCB. A copy of the April 2002 Annual Report is available on the Internet (Appendix O).

### 5.1 Annual Report

The CSWC provides input to the Annual Report with regard to Construction activities. The District CSWC coordinates with the Headquarters Construction Division SWC and the District NPDES SWC to provide the information related to Construction water pollution control issues for the Annual Report. .

Section 9 of the SWMP identifies the following items to be included in the Annual Report:

- Non-storm Water Report: Identifies and characterizes additional non-storm water discharges for the reporting period.
- Revisions to the SWMP: Describes and justifies revisions to the SWMP. These revisions are encouraged by Caltrans through the NPDES Storm Water Coordinator, the public through annual workshops, and requests by the SWRCB or RWQCB.
- Revisions to the RWPs: Provides details of activities to be conducted by the Districts for the upcoming reporting period to comply with the Permit and SWMP
- BMP Selection Report: Describes and justifies BMP revisions.
- New BMP Selection: Describes new technologies that are being evaluated for use by Caltrans.
- Municipal Coordination Program: Reports additional details of coordination activities to be conducted during the reporting period from the RWPs and coordination activities by the Districts and Headquarters to implement the municipal coordination plan.
- Analysis of Adequacy of Legal Authority: Describes specific problems encountered while implementing the storm water program that are a result of legal constraints.
- Fiscal Analysis: Describes fiscal constraints encountered while implementing the storm water program.
- Report on the IC/ID Program: Summarizes the actions taken on all reports of IC/ID incidents.
- Public Education Program Progress Report

In some Districts, the CSWC may be designated to collect and forward Construction-related input for the Annual Report to the Headquarters Construction Division SWC as requested. Much of the information needed for the Annual Report is forwarded by the CSWCs to the District NPDES SWC throughout the year.

Examples of information that may be requested from a CSWC for the Annual Report include the following:

- Information and statistics about storm water training of Construction staff
- Information and statistics about IC/ID incidents (normally maintained by the District NPDES SWC)
- Log of pre-construction meetings
- Number of SWPPP/WPCP projects
- Notices of Violation or Fines
- Information and reports if required by ongoing lawsuits

## **5.2 Management Updates**

The CSWC is responsible for keeping management informed on the status of water pollution control compliance for Construction within the District.



## 6.0 Regulatory Agencies

### 6.1 SWRCB and RWQCBs

Although the SWRCB issued the *Caltrans Statewide NPDES Permit*, the nine RWQCBs are the designated primary enforcement agencies at the local level. RWQCB permit oversight includes construction site compliance inspections, program tracking, coordination, and enforcement actions. In addition, the RWQCBs regulate other storm water dischargers. In this role, the RWQCBs communicate directly with the Districts. Appendix P has a map showing the relationship between District and RWQCB boundaries. A list of RWQCB contacts is included in Appendix F of this document.

There are several mechanisms that Caltrans uses to communicate and coordinate with the RWQCBs. Of those, the CSWC may be given responsibility for assisting with the following:

- Annual Reporting
- Notification of discharge/non-compliance
- Notification of spills and identification of IC/ID incidents
- Development of RWP; and
- Meetings

The SWMP (April 2002) requires Caltrans to develop RWPs. A RWQCB may have additional requirements for RWPs developed within its jurisdiction. The RWPs for 2002/2003 are available on the Internet (Appendix O).

As discussed in Section 6.3, the RWQCB has input into the U.S. Army Corps of Engineers (Corps) 404 Permit process through a 401 Certification. This allows the RWQCB to review the permit from the Corps and add additional requirements.

### 6.2 California Department of Fish and Game

The California Department of Fish and Game (DFG) streambed alteration agreements and permits are normally the responsibility of Caltrans Environmental. The CSWC should be aware of the requirements of these permits as they apply to the Construction projects in their District. The CSWC should have a contact within Caltrans Environmental to address concerns regarding any DFG permits for their projects.

The CSWC should review any DFG permits or agreements for pertinent restrictions, especially those with the potential to affect storm water runoff. The permit expiration dates are very important and could impact on Construction Project schedules if allowed to expire. The CSWC should coordinate with the Environmental contact and the RE to ensure that the expiration dates of DFG permits or agreements are kept up-to-date.

Section 1601 of the Fish and Game Code requires that public agencies such as Caltrans reach an agreement with the DFG if proposed work affects a waterway. The required agreement is known

as a Lake/Streambed Alteration Agreement or 1601 Agreement. Any water body shown as a blue line on a USGS map is considered a waterway. The DFG may also designate other areas as protected waterways, such as roadside ditches or ephemeral streams. When in doubt, consult with your DFG representative.

The 1601 Agreement specifically prohibits polluting the waters of the State and may prohibit specific activities at certain times of the year; for example, working in the river during spawning season. The agreement may also require the contractor to undertake specific measures, such as installing fish ladders. Violations of the agreement are punishable by fine, imprisonment, or both.

Section 5650 of the Fish and Game Code prohibits the placement of specified materials in the waters of the state. Violations can result in major fines or even jail. Examples of violations include the following:

- Causing dirt and sediment to enter the waters of the State
- Using creosoted timbers in the waters of the State
- Placing petroleum products, such as asphalt or diesel, into, or where they can get into, the waters of the State
- Placing asphalt concrete grindings, chunks, and pieces in areas where they can pass into the waters of the State

A memorandum of understanding (MOU) exists between the DFG and Caltrans regarding the placement of asphalt concrete pavement grindings as shoulder backing and the placement of asphalt concrete pieces and chunks in embankments. For a discussion of reusing asphalt concrete as fill material and shoulder backing and a summary of the MOU refer to Section 611.11, “Conservation of Materials and Energy,” of the *Highway Design Manual*, which is available on the Internet (Appendix O). If a question arises as to whether asphalt concrete grindings or chunks may get into the waters of the state, consult with your DFG representative.

The following is an excerpt from the *Highway Design Manual* Section 611.11(3):

“(3) *Use of Asphalt Concrete Grindings, Chunks and Pieces.* Section 5650 of the Fish and Game Code states that it is unlawful to deposit asphalt, other petroleum products, or any material deleterious to fish, plant life, or bird life where they can pass into the waters of the State. In addition, Section 1601 of the Fish and Game Code requires notification to the California Department of Fish and Game (DFG) prior to construction of a project that will result in the disposal or deposition of debris, waste or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake designated by the DFG. When constructing transportation facilities, Caltrans frequently uses asphalt in mixed or combined materials such as asphalt concrete (AC) pavement. Caltrans also uses recycled AC grindings and chunks. There is a potential for these materials to reach the waters of the State through erosion or inappropriate placement during construction.

The first step is to determine whether there are waters of the State in proximity to the project that could be affected by the reuse of AC. Waters of the State include: (1) perennial rivers, streams or lakes that flow or contain water continuously for all or most of the year; or (2) intermittent lakes that contain water from time to time or intermittent rivers or streams that flow from time to time, stopping and starting at intervals, and may disappear and reappear.

Ephemeral streams, which are generally exempt under provisions developed by Caltrans and DFG, are those that flow only in direct response to rainfall. The reuse of AC pavement grindings will normally be consistent with the Fish and Game Code and not require a 1601 Agreement when these materials are placed where they cannot enter the waters of the State. However, there are no set rules as to distances and circumstances applicable to the placement of asphaltic materials. Placement decisions must be made on case-by-case basis, so that such materials will be placed far enough away from the waters of the State to prevent weather (erosion) or maintenance operations from dislodging the material into State waters. Site-specific factors (i.e., steep slopes) should be given special care. Generally, when AC pavement grindings are being considered for placement where there is a potential for problems, DFG should be notified to assist in determining whether a 1601 Agreement is appropriate and what mitigation strategies are available to prevent the materials from entering the waters of the State. When in doubt, it is recommended that the DFG be notified. If there is the potential for reused AC materials to reach waters of the State through erosion or other means during construction, such work would normally require a 1601 Agreement. Depending on the circumstances, the following measures should be taken:

- The reuse of AC pavement grindings as fill material and shoulder backing must conform to the Caltrans Standard Specifications, applicable manuals of instruction, contract provisions and the MOU described below.
- ☐☐ AC chunks and pieces in embankments must be placed above the water table and covered by at least one foot of material.

A Memorandum of Understanding (MOU) dated January 12, 1993, outlines the interim agreement between the DFG and Caltrans regarding the use of asphaltic materials. This MOU provides a working agreement to facilitate Caltrans' continued use of asphaltic materials and avoid potential conflicts with the Fish and Game Code by describing conditions where use of asphalt road construction material by Caltrans would not conflict with the Fish and Game Code.

Specific Understandings contained in the MOU are:

- Asphalt Use in Embankments. Caltrans may use AC chunks and pieces in embankments when these materials are placed where they will not enter the waters of the State.
- ☐ Use of AC Pavement Grindings as Shoulder Backing. Caltrans may use AC pavement grindings as shoulder backing when these materials are placed where they will not enter the waters of the State.
- ☐ Streambed Alteration Agreements. Caltrans will notify the DFG pursuant to Section 1601 of the Fish and Game Code when a project involving the use of asphaltic materials or crumbled, flaked, or ground pavement will alter or result in the deposition of pavement material into a river, stream, or lake designated by the DFG. When the proposed activity incorporates the agreements reached under Section 1601 of the Fish and Game Code, and is consistent with Section 5650 of the Fish and Game Code and this MOU, the DFG will agree to the use of these materials.

There may be circumstances where agreement between the DFG and Caltrans cannot be reached. Should the two agencies reach an impasse, the agencies enter into a binding arbitration process outlined in Section 1601 of the Fish and Game Code. However, keep in mind that this arbitration process does not exempt Caltrans from complying with the provisions of the Fish and Game Code. Also it should be noted that this process is time consuming, requiring as much as 72 days or more to complete. Negotiations over the placement of AC grindings, chunks and pieces are to take place at the District level as part of the 1601 Agreement process.”

### **6.3 U.S. Army Corps of Engineers**

The U.S. Army Corps of Engineers (Corps) enforces Section 404 of the CWA. Permits issued under Section 404 are normally the responsibility of Caltrans Environmental. The CSWC should be aware of the 404 permit requirements for the construction projects within the District, especially those that potentially affect storm water runoff issues. The CSWC should have a contact at Environmental to address potential issues regarding 404 permits. The CSWC should coordinate with Environmental and the RE to ensure that the expiration dates of 404 permits are kept up-to-date.

Section 404 of the CWA requires that parties interested in depositing dredged or fill material into "waters of the United States, including wetlands," receive authorization for such activities. The Corps has been assigned responsibility for administering the Section 404 permitting process. Activities for which permits may be required include, but are not limited to:

- Placement of fill material
- Ditching activities when the excavated material is sidecast
- Levee and dike construction

- Mechanized land clearing
- Land leveling
- Most road construction
- Dam construction

Section 401 of the CWA requires any applicant for a 404 permit to conduct any activity which may result in any discharge into navigable waters, to provide the licensing or permitting agency with a certification from the State in which the discharge will originate. The RWQCB is responsible for issuing the 401 Certification for a 404 permit for discharges to waters within its jurisdiction.

The final determination of whether an area is a wetland and whether the activity requires a permit must be made by the appropriate U.S. Army Corps District Office.

#### **6.4 Department of Toxic Substances Control**

The California Department of Toxic Substances Control (DTSC) is responsible for enforcing hazardous waste regulations. The substance that most commonly affects Caltrans construction sites is the presence of aerially deposited lead (ADL) in the soil.

The Caltrans Environmental website (Appendix O) has a copy of the current DTSC variances for soil contaminated with ADL through September 22, 2005. Copies of these variances are provided in Appendix G of this document. The CSWC should be familiar with the ADL variance for any construction projects in the District that include handling of ADL-contaminated soils.

The ADL variance offers some relief from hazardous waste storage and disposal requirements. However, there are still requirements for the proper storage and handling of the ADL-contaminated soils. The handling of ADL-contaminated soils is a potential storm water concern that requires compliance with BMP WM-3, Stockpile Management, and BMP WM-7, Contaminated Soil Management.

The contract special provisions normally include site-specific requirements for handling ADL-contaminated soils. ADL-contaminated soils are normally the responsibility of the District Construction Hazardous Materials Manager. However, the CSWC should assist the RE in complying with all the ADL-contaminated soil requirements for protection of storm water runoff from such soils.

#### **6.5 Air Pollution Control Districts/Air Quality Management Districts**

The *Construction Manual*, Section 7-104A, Air Quality, states that all Caltrans projects must comply with the Clean Air Act. Permits are issued by local air quality management districts - Air Pollution Control Districts (APCDs) or the Air Quality Management Districts (AQMDs). This requires that the project create no smoke, offensive odors, or visible dust. Contractors must take appropriate measures to ensure that equipment is properly maintained and to apply water and other dust palliatives as frequently as necessary. Violations can result in fines and sanctions against the contractor and Caltrans.

The CSWC should assist the RE in ensuring that the contractor is in compliance with the following requirements. In areas where naturally occurring asbestos has been identified, the specifications will set forth additional requirements to protect workers and the public. In this case, the RE should include consideration of asbestos in the project code of safe practices.

Standard Specification 7-1.01F Air Pollution Control states:

“The Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the contract, including any air pollution control rules, regulations, ordinances and statutes specified in Section 11017 of the Government Code.

Unless otherwise provided in the Special Provisions, material to be disposed of shall not be burned, either inside or outside the highway right of way.”

Section 10 of the Standard Specifications addresses Dust Control. Section 18 addresses Dust Palliatives.

Section 59 of the Standard Specifications addresses Painting.

Government Code 11017 states, “Notwithstanding any other provision of law, each state agency in performing its duties shall comply with all local air pollution control rules, regulations, and ordinances which are more stringent than any applicable state air pollution control statute, rule, or regulation.

In any area where neither any local air pollution control rules, regulations, or ordinances nor any state air pollution control statute, or rule or regulation adopted by the State Air Resources Board pursuant to Section 41503 or 41504 of the Health and Safety Code, applies, the State Air Resources Board may adopt, after a public hearing, air pollution control rules and regulations for state agencies performing their duties in such areas, and each state agency in performing its duties in such area shall comply with such air pollution control rules and regulations.”



## **APPENDIX A**

Notification of Construction  
Notification of Construction (Desert Areas)  
Notice of Completion of Construction

## Notification of Construction

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

**NOTIFICATION OF CONSTRUCTION**

CEM-2002 (NEW 4/10/2000)

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003

**I. IDENTIFICATION - Attach Vicinity Map, 1/2 size copy of Title Sheet**

PROJECT		CHECK ONE: <input type="checkbox"/> First Submittal or <input type="checkbox"/> Amendment No.	CONTRACT NUMBER <b>EA</b>	DATE MM/DD/YYYY
CITY (if applicable)	COUNTY	TENTATIVE START DATE		TENTATIVE END DATE
ROUTE	POST MILE	KILOMETER POST	TENTATIVE DATE SWPPP AVAILABLE	

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS**

<input type="checkbox"/> Region 1, North Coast	<input type="checkbox"/> Region 5, Central Valley	<input type="checkbox"/> Region 6, Lahontan	<input type="checkbox"/> Region 7, Colorado River
<input type="checkbox"/> Region 2, San Francisco Bay	<input type="checkbox"/> Sacramento	<input type="checkbox"/> South Lake Tahoe	<input type="checkbox"/> Region 8, Santa Ana
<input type="checkbox"/> Region 3, Central Coast	<input type="checkbox"/> Fresno	<input type="checkbox"/> Victorville	<input type="checkbox"/> Region 9, San Diego
<input type="checkbox"/> Region 4, Los Angeles	<input type="checkbox"/> Redding		

**III. CALTRANS DISTRICT**

NAME/NUMBER	PROJECT CONTACT
ADDRESS	POSITION TITLE
CITY	PHONE

**IV. CONSTRUCTION FIELD OFFICE - Attach Location Map**

STREET ADDRESS			CONSTRUCTION CONTACT
PHYSICAL LOCATION IF DIFFERENT THAN ADDRESS ABOVE			POSITION TITLE
CITY	STATE	ZIP	PHONE

**V. CONSTRUCTION SITE INFORMATION**

DESCRIPTION AND TYPE OF WORK

ADDITIONAL RELATED REQUIRED APPROVALS: ☐ DTSC Variance ☐ CWA 404/401 ☐ DFG 1601 ☐ NPDES/WDRs ☐ OTHER

DESCRIBE:

TOTAL CONSTRUCTION AREA:	ACRES	HECTARES	TOTAL DISTURBED AREA:	ACRES	HECTARES
RECEIVING WATER NAME:			PROJECT IN OR ADJACENT TO RECEIVING WATER? <input type="checkbox"/> YES		
PROJECT DISCHARGES TO? <input type="checkbox"/> GROUNDWATER INFILTRATION		BASIN LOCATION:		MUNICIPAL/OTHER SYSTEM NAME:	

**VI. CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

SIGNATURE	DATE
PRINT/TITLE NAME	TITLE

**ADA Notice** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 263-2041 or TDD (916) 263-2044 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

California Department of Transportation • Construction Manual • July 2001

Sample Forms



A-1.11

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**NOTIFICATION OF CONSTRUCTION (NOC) INSTRUCTIONS**  
 CEM-2002 (NEW 4/10/2000)

**CALTRANS STATEWIDE NPDES PERMIT**  
**Order No. 99-06 DWQ, NPDES CAS000003**

The Permit requires that a Notification of Construction (NOC) for construction projects covered by the Permit be submitted to the appropriate Regional Water Quality Control Board (RWQCB) at least 30 days prior to the start of construction. In some cases, the RWQCB may view two or more smaller projects in the same corridor as part of a larger common plan of development. The Project Manager should be aware of other projects in the corridor. If needed, these projects should be mentioned in section V. Construction Site Information.

Typically, most of the information on the form is completed by the District Storm Water Coordinator, Environmental staff, Project Manager or Project Engineer. That individual also submits the NOC to the appropriate RWQCB(s) at the same time the PS&E package is transmitted to the Office Engineer. No fees are to be submitted to the RWQCBs. A copy should also be transmitted to the District Construction Division.

At the time of the first submittal to the RWQCB, the District may elect to leave blank the information in Section IV. Construction Field Office and resubmit a copy of the form with that information filled in at the time the Resident Engineer (RE) is assigned. Alternately, the District may wish to fill in a contact name of someone other than the RE, such as the Area Senior Construction Engineer or Project Manager, who will remain the contact for that project until the NOC is resubmitted with the new contact information, or until the Notice of Completion of Construction (NCC) is filed.

The form may be filled in electronically or by printing legibly.

**I. IDENTIFICATION.** Provide a brief project descriptive name, a "nickname." When the NOC is first submitted to the RWQCB, check the First Submittal box. For subsequent changes of information, including contact information, enter the amendment number.

Enter the Contract Number. Use the construction phase EA.

Enter the date that the NOC is first submitted to the Regional Water Quality Control Board (RWQCB), or date of subsequent submittals.

Provide a "to scale" or "to approximate scale" drawing of the construction site and the immediate surrounding area. Limit the map to an 8.5" x 11" or 11" x 17" size. At a minimum, the map must show the site perimeter, the geographic features surrounding the site, general topography, and location of the construction project in relation to surface waters and named streets, roads, intersections, or landmarks. Do not submit a drawing unless it meets the above size limits.

Enter the city, if applicable, or N/A if not within city limits. Enter the county or counties, route number, post mile and kilometer post. Also enter the tentative start and end dates.

Enter a tentative date the Storm Water Pollution Prevention Plan (SWPPP) will be available.



STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION  
**NOTIFICATION OF CONSTRUCTION (NOC) INSTRUCTIONS**  
 CEM-2002 (NEW 4/10/2000)

**CALTRANS STATEWIDE NPDES PERMIT**  
**Order No. 99-06 DWQ, NPDES CAS000003**

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD(S).**

Check the box of the RWQCB(s) that has jurisdiction over the area that the project is in.

**III. CALTRANS DISTRICT.** Enter the name and address of the Caltrans District individual responsible for submittal of the NOC to the RWQCB. Typically that individual is the Project Engineer, Project Manager, the District Storm Water Coordinator, or Environmental Program staff.

**IV. CONSTRUCTION FIELD OFFICE.** Enter Caltrans field office information, if known, and Construction Contact person information. As discussed above, the District may elect to use the contact information for the RE after the project has been assigned, or another individual, such as the Area Senior or Project Manager. If the Construction Contact information changes, then the District should resubmit a revised form to the RWQCB(s). Provide the physical address of the field office, or a description of the physical location of the field office if no physical address is available and a location map.

**V. CONSTRUCTION SITE INFORMATION.** Provide a brief narrative description of the work. You can attach a checklist of permanent and/or temporary BMPs if needed, or required by a RWQCB. A checklist of construction BMPs can also be attached later as an amendment after the SWPPP is completed.

Check the box or boxes to indicate any additional required approvals, permits or certifications. Some examples are: variance from the Department of Toxic Substances Control (DTSC) for reuse of soil containing lead, dredge or fill operations requiring Army Corps of Engineers 404 certification and/or Clean Water Act 401 certification, streambed alteration requiring Department of Fish and Game 1601 permit and non-storm water discharges requiring separate waste discharge requirements. Describe the condition and whether the approval, permit or certification has been issued. If the project involves soils subject to the DTSC variance, notify the appropriate RWQCB(s) to determine if separate waste discharge requirements must be issued. The RWQCBs have up to 120 days to issue waste discharge requirements, so the RWQCBs should be notified early in the process.

Indicate the total size in acres and hectares, of the construction project. Also indicate the size of the disturbed soil area. Disturbed soil area is defined in the Storm Water Management Plan as "areas of exposed, erodible soil, including stockpiles, that are within the construction limits and that result from construction activities."

Identify the name of the surface receiving water body for the storm water discharge. Indicate whether the project is in or immediately adjacent to the receiving water. If the storm water is infiltrated, check the box for infiltration basin, and identify the basin's location. If the discharge is to a separate storm sewer system, such as a collection system operated by a municipality, flood control district, utility, or similar entity, check the box for municipal/other system and the name of the system owner.

**VI. CERTIFICATIONS.** The permit requires that all reports and information requested by the SWRCB or RWQCBs be signed by an Executive Officer, Executive Director or a duly authorized representative if the authorization is made in writing. If signature authority is delegated to staff, a copy of that delegation letter should be sent to the Storm Water Manager at Headquarters.

## Notification of Construction (Desert Areas)

**NOTIFICATION OF CONSTRUCTION (DESERT AREAS)**

(APPLIES TO PROJECTS BELOW ELEVATION 1200 METERS IN RWQCB 6 &amp; 7 JURISDICTION)

CEM-2004 (New 08/30/02)

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES PERMIT, Order No. 99-06 DWQ, NPDES No. CAS000003

**I. IDENTIFICATION – Attach Vicinity Map, ½ Size Copy of Title Sheet**

PROJECT	NOC SUBMITTAL (Check One) <input type="checkbox"/> First Submittal or <input type="checkbox"/> Amendment No. _____		CONTRACT NUMBER EA	DATE MM/DD/YY
CITY (if applicable)	COUNTY	TENTATIVE START DATE	TENTATIVE END DATE	
ROUTE	POST MILE	KILOMETER POST	TENTATIVE DATE SWPPP AVAILABLE	

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

<input type="checkbox"/> REGION 6, LAHONTAN RWQCB South VICTORVILLE OFFICE 15428 Civic Drive, Ste 100 Victorville, CA 92392 Ph: (760) 241-6583 Fax: (760) 241-7308	<input type="checkbox"/> REGION 7, COLORADO RIVER BASIN RWQCB 73-720 Fred Waring Drive, Ste. 100 Palm Desert, CA 92260 Ph: (760) 346-7491 Fax: (760) 341-6820
---	---

**III. CALTRANS DISTRICT**

NAME/NUMBER	PROJECT CONTACT
POSITION TITLE	ADDRESS
CITY	PHONE

**IV. CONSTRUCTION OFFICE – Attach Location Map**

STREET ADDRESS		CONSTRUCTION CONTACT	
PHYSICAL LOCATION IF DIFFERENT THAN ABOVE ADDRESS		POSITION TITLE	
CITY	STATE	ZIP	PHONE

**V. CONSTRUCTION SITE INFORMATION**

DESCRIPTION AND TYPE OF WORK:			
<b>BMPs TO BE IMPLEMENTED (CHECK BOXES THAT APPLY OR ATTACH SWPPP)</b> <b>Temporary Soil Stabilization BMPs:</b> <input type="checkbox"/> SS-1 Scheduling <input type="checkbox"/> SS-7 Geotextiles, Plastic Covers & Erosion Control Blankets <input type="checkbox"/> SS-2 Pres. of Existing Vegetation <input type="checkbox"/> SS-8 Wood Mulching <input type="checkbox"/> SS-3 Hydraulic Mulch <input type="checkbox"/> SS-9 Earth Dikes/Drainage Swales & Lined Ditches <input type="checkbox"/> SS-4 Hydroseeding <input type="checkbox"/> SS-10 Outlet Protection & Velocity Dissipation Devices <input type="checkbox"/> SS-5 Soil Binders <input type="checkbox"/> SS-11 Slope Drains <input type="checkbox"/> SS-6 Straw Mulch <input type="checkbox"/> Wind Erosion Control BMPs <input type="checkbox"/> Tracking Control BMPs <input type="checkbox"/> Non-Storm Water Management BMPs <input type="checkbox"/> Waste Mgmt. & Materials Pollution Control BMPs			
<b>Temporary Sediment Control BMPs:</b> <input type="checkbox"/> SC-1 Silt Fence <input type="checkbox"/> SC-6 Gravel Bag Berm <input type="checkbox"/> SC-2 Desilting Basin <input type="checkbox"/> SC-7 Street Sweeping & Vacuuming <input type="checkbox"/> SC-3 Sediment Trap <input type="checkbox"/> SC-8 Sandbag Barrier <input type="checkbox"/> SC-4 Check Dam <input type="checkbox"/> SC-9 Straw Bale Barrier <input type="checkbox"/> SC-5 Fiber Rolls <input type="checkbox"/> SC-10 Storm Drain Inlet Protection			
USGS COORDINATES		NORTHING: EASTING:	
TOTAL CONSTRUCTION AREA:	ACRES	HECTARES	TOTAL DISTURBED AREA: ACRES HECTARES
RECEIVING WATER NEAREST PROJECT SITE:		APPROXIMATE CLOSEST DISTANCE TO RECEIVING WATER?	

**VI. CERTIFICATION**

I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	
SIGNATURE	DATE
PRINT/TYPE NAME	TITLE

**CALTRANS STATEWIDE NPDES PERMIT**  
**Order No. 99-06 DWQ, NPDES CAS000003**  
**Notification of Construction (Desert Areas) [NOC-DA] Instructions**

The Permit requires that a Notification of Construction (Desert Areas) [NOC-DA] for construction projects covered by the Permit within Rainfall Area 7 be submitted to the appropriate Regional Water Quality Control Board (RWQCB) at least 30 days prior to the start of construction. Rainfall Area 7 includes District 6 within the Lahontan RWQCB jurisdiction, District 7 within the Lahontan RWQCB jurisdiction, District 8 within the Lahontan and Colorado River Basin RWQCB jurisdictions, District 9, and District 11 within the Colorado River Basin RWQCB jurisdiction. In some cases, the RWQCB may view two or more smaller projects in the same corridor as part of a larger common plan of development. The Project Manager should be aware of other projects in the corridor. If needed, these projects should be mentioned in Section V. Construction Site Information.

Typically, most of the information on the form is completed by the District Storm Water Coordinator, Environmental staff, Project Manager, or Project Engineer. That individual also submits the NOC-DA to the appropriate RWQCB(s) at the same time the PS&E package is transmitted to the Office Engineer. No fees are to be submitted to the RWQCBs. A copy should also be transmitted to the District Construction Division.

At the time of the first submittal to the RWQCB, the District may elect to leave blank the information in Section IV. Construction Office and resubmit a copy of the form with that information filled in at the time the Resident Engineer (RE) is assigned. Alternately, the District may wish to fill in a contact name of someone other than the RE, such as the Area Senior Construction Engineer or Project Manager, who will remain the contact for that project until the NOC-DA is resubmitted with the new contact information, or until the Notice of Completion of Construction (NOCC) is filed.

The form may be filled in electronically or by printing legibly.

**I. IDENTIFICATION.** Provide a brief project descriptive name, a "nickname." When the NOC-DA is first submitted to the RWQCB, check the First Submittal box. For subsequent changes of information, including contact information, check the Amendment No. box and enter the amendment number.

Enter the Contract Number. Use the construction phase EA.

Enter the date that the NOC-DA is first submitted to the RWQCB, or date of subsequent submittals.

Provide a "to scale" or "to approximate scale" drawing of the construction site and the immediate surrounding area. Limit the map to an 8.5" x 11" or 11" x 17" size. At a minimum, the map must show the site perimeter, the geographic features surrounding the site, general topography, and location of the construction project in relation to surface waters and named streets, roads, intersections, or landmarks. Do not submit a drawing unless it meets the above size limits.

Enter the city, if applicable, or N/A if not within the city limits. Enter the county or counties, route number, post mile and kilometer post. Also enter the tentative start and end dates.

Enter a tentative date the Storm Water Pollution Prevention Plan (SWPPP) will be available.

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD.** Check the box of the RWQCB that has jurisdiction over the area that the project is in.

**CALTRANS STATEWIDE NPDES PERMIT**  
**Order No. 99-06 DWQ, NPDES CAS000003**  
**Notification of Construction (Desert Areas) [NOC-DA] Instructions**

**III. CALTRANS DISTRICT.** Enter the name, address and telephone number of the Caltrans District individual responsible for submittal of the NOC-DA to the RWQCB. Typically, that individual is the Project Engineer, Project Manager, the District Storm Water Coordinator, or Environmental Program staff member.

**IV. CONSTRUCTION OFFICE.** Enter the Caltrans field office information, if known, and the construction project contact person information. As discussed above, the District may elect to use the contact information for the RE after the project has been assigned, or another individual, such as the Area Senior or Project Manager. If the construction contact information changes, then the District should resubmit a revised form to the RWQCB. Provide the physical address of the field office, or a description of the physical location of the field office, if no physical address is available. Provide a location map.

**V. CONSTRUCTION SITE INFORMATION.** Provide a brief narrative description of the work.

Check the boxes that identify the Best Management Practices (BMPs) to be implemented on the project or attach a copy of the SWPPP.

Enter the United States Geological Survey (USGS) coordinates for the project location, if known.

Indicate the total size of the construction project in acres and hectares. Also indicate the size of the disturbed soil area in acres and hectares. Disturbed soil area is defined in the Storm Water Management Plan as "areas of exposed, erodible soil, including stockpiles, that are within the construction limits and that result from construction activities."

Identify the name of the surface receiving water body for the storm water discharge. Indicate the distance the nearest project location is to the receiving water.

**VI. CERTIFICATION.** The Permit requires that all reports and information requested by the State Water Resources Control Board (SWRCB) or RWQCBs be signed by an Executive Officer, Executive Director, or a duly authorized representative if the authorization is made in writing. If signature authority is delegated to staff, a copy of that delegation letter should be sent to the Storm Water Manager at Headquarters.

## Notice of Completion of Construction

**NOTICE OF COMPLETION OF CONSTRUCTION**

CP-CEM-2003 (NEW 4/12/2000)

IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003

**I. IDENTIFICATION**

PROJECT		CONTRACT NUMBER EA		DATE MM/DD/YYYY	
CITY (if applicable)	COUNTY	ROUTE	KILOMETER POST / POST MILE (S)	START DATE	END DATE

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS**

- |  |   |   |   |
|--|---|---|---|
| <input type="checkbox"/> Region 1, North Coast       | <input type="checkbox"/> Region 5, Central Valley | <input type="checkbox"/> Region 6, Lahontan | <input type="checkbox"/> Region 7, Colorado River |
| <input type="checkbox"/> Region 2, San Francisco Bay | <input type="checkbox"/> Sacramento               | <input type="checkbox"/> South Lake Tahoe   | <input type="checkbox"/> Region 8, Santa Ana      |
| <input type="checkbox"/> Region 3, Central Coast     | <input type="checkbox"/> Fresno                   | <input type="checkbox"/> Victorville        | <input type="checkbox"/> Region 9, San Diego      |
| <input type="checkbox"/> Region 4, Los Angeles       | <input type="checkbox"/> Redding                  |   |   |

**III. CALTRANS DISTRICT**

NAME/NUMBER		PROJECT CONTACT
ADDRESS		POSITION TITLE
CITY	ZIP	PHONE

**IV. BASIS OF COMPLETION**

- ☐ 1. The construction job is complete and requirements met as of **Date:**
- ☐ 2. Construction activities have been suspended, as of **Date:** **Expected Start Up Date:**
- ☐ 3. Site can not discharge storm water to waters of the United States **Reason:**
- ☐ 4. Discharge is now subject to NPDES Permit **No.** **Date:**

**V. DESCRIPTION OF COMPLETION (Attach site photographs)****VI. CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of

SIGNATURE

PRINT/TYPE NAME

DATE

TITLE

**NOTICE OF COMPLETION OF CONSTRUCTION (NCC) INSTRUCTIONS**

CP-CEM-2003 (NEW 4/12/2000)

---

**CALTRANS STATEWIDE NPDES PERMIT  
Order No. 99-06 DWQ, NPDES CAS000003**

I. IDENTIFICATION. The project name, contract number, city, county, route, kilometer post and post mile information should be identical to that on the Notification of Construction form. Enter the date the Completion of Construction (NCC) is submitted to the Regional Water Quality Control Boards (RWQCB) and the start and end dates of construction.

II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS. Check the box next to the appropriate RWQCB(s).

III. CALTRANS DISTRICT. Provide the Caltrans District information and the name, title and phone of the construction contact, which by District policy may be the Resident Engineer (RE), the Area Senior, the Program Manager, National Pollution Discharge Elimination System (NPDES) Coordinator or other responsible staff. The contact should be someone who can address RWQCB staff questions about project storm water controls or who can refer a RWQCB staff to a someone who can.

IV. BASIS OF COMPLETION. Check one of the boxes:

1. The construction project has been completed and
  - all elements of the Storm Water Pollution Prevention Plan (SWPPP) have been completed;
  - construction materials and equipment maintenance waste have been disposed of properly;
  - final stabilization requirements have been met, i.e., when all soil disturbing activities are completed and either:
    - a uniform vegetative cover with 70 percent coverage has been established or
    - equivalent stabilization measures have been employed. (i.e., erosion resistant soil coverings or treatments).
  - Caltrans projects typically include erosion control on all disturbed areas, which is considered to be equivalent stabilization.
  - the post-construction storm water operation and management plan is in place.
2. Construction activities have been suspended, either temporarily or indefinitely and
  - all elements of the SWPPP have been completed;
  - construction materials and equipment maintenance waste have been disposed of properly;
  - all denuded areas and other areas of potential erosion are stabilized;
  - an operation and maintenance plan for erosion and sediment control is in place;
  - the date construction activities were suspended, and the expected start up date
3. The construction site can not discharge storm water to waters of the United States. Indicate how prevention of all discharge is ensured, and if all storm water is retained on site or collected offsite.
4. The discharge of construction storm water from the site is now subject to another NPDES general permit or an individual NPDES permit. The general permit or individual permit NPDES number and the date coverage began should be provided.

V. DESCRIPTION OF COMPLETION

Briefly describe how the completion requirements have been met. Attach site photographs.

VI. CERTIFICATION

The permit requires information submitted be signed by the District Director or a duly authorized representative. If the District Director elects to delegate signature authority, the District must first have submitted the list of authorized representatives to the appropriate RWQCB.



## **APPENDIX B**

Notice of Discharge Form

# Attachment K

## Notice of Discharge, Written Notice, or Order

### **INSTRUCTIONS**

- This form will be used to report instances of discharges. The completed form will be submitted to the Resident Engineer within 7 days, or as specified by the Special Provisions, of the assessment of discharge, written notice or orders from a regulatory agency.
- Note that number of days may vary according to specific District reporting requirements.

To: Name of Caltrans Resident Engineer

Date: Insert Date

Subject: Notice of Discharge

Project Name: Insert Project Name

Caltrans Contract Number: contract number

---

In accordance with the Caltrans NPDES Statewide Permit for Storm Water Discharges Associated with Construction Activity, the following instance of discharge is noted:

#### **Date, time, and location of discharge**

Insert description and date of event

#### **Nature of the operation that caused the discharge**

Insert description of operation

#### **Initial assessment of any impact caused by the discharge**

Insert assessment

#### **Existing BMP(s) in place prior to discharge event**



List BMPs in place

**Date of deployment and type of BMPs deployed after the discharge.**

BMPs deployed after the discharge (with dates)

**Steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge**

Insert steps taken to prevent recurrence

**Implementation and maintenance schedule for any affected BMPs**

Insert implementation and maintenance schedule

If further information or a modification to the above schedule is required, notify the contact person below.

\_\_\_\_\_  
Name of Contact Person

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



## **APPENDIX C**

Storm Water Quality Construction Site Inspection Checklist  
Storm Water Task Force Inspection Checklists

## Storm Water Quality Construction Site Inspection Checklist

# Storm Water Quality Construction Site Inspection Checklist

(revised from Attachment H of Appendix B of the SWPPP/WPCP Preparation Manual, 2000)

## ***INSTRUCTIONS***

- Use this form for inspecting BMPs as described in SWPPP Section 500.5.
- This inspection form shall be completed and signed by the Contractor's Water Pollution Control Manager (WPCM).
- The Conceptual SWPPP (CSWPPP) or the Special Provisions may require the Contractor to use a different inspection form
- The weather information shall be the best estimate of beginning of the storm event, duration of the event, time elapsed since the last storm, and approximate amount of rainfall.
- List observations of all BMPs: temporary soil stabilization (erosion control), temporary sediment controls, wind erosion controls, tracking controls, non-storm water controls and waste management and materials pollution controls.
- Evaluate BMPs for adequacy and proper implementation and whether additional BMPs are required in accordance with the terms of the Permits.
- Verify implementation of non-storm water discharge BMPs and evaluate their effectiveness.
- One time discharges of non-storm water shall be inspected when such discharges occur.
- Describe any inadequate BMPs.
- Note the corrective actions required, including any changes to the SWPPP, and implementation dates.
- Was storm water monitoring samples collected for analysis pursuant to the Sampling and Analysis Plan?
- If you answer "No" to any of the questions, describe the corrective action(s) to be taken and when the corrective action(s) are to be completed. Should you need more space to describe corrective actions, identify your response numerically and use additional sheets as necessary.

GENERAL INFORMATION				
Project Name				
Caltrans Contract N°				
Contractor				
Inspector's Name				
Inspector's Title				
Signature				
Date of Inspection				
Inspection Type (Check Applicable)	<input type="checkbox"/> Prior to forecast rain <input type="checkbox"/> After a rain event <input type="checkbox"/> 24-hr intervals during extended rain <input type="checkbox"/> Other _____			
Season (Check Applicable)	<input type="checkbox"/> Rainy <input type="checkbox"/> Non-Rainy			
Storm Data	Storm Start Date & Time:		Storm Duration (hrs):	
	Time elapsed since last storm (Circle Applicable Units)	Min.    Hr.    Days	Approximate Rainfall Amount (mm)	

PROJECT AREA SUMMARY AND DISTURBED SOIL AREA (DSA) SIZE LIMITS FROM SPECIAL PROVISIONS			
Total Project Area	_____ Hectares	_____ Acres	
Rainy Season DSA Limit	_____ Hectares	_____ Acres	
Field Estimate of Active DSAs	_____ Hectares	_____ Acres	

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
<b>Preservation of Existing Vegetation</b>				
Is temporary fencing provided to preserve vegetation in areas where no construction activity is planned?				
Location:				
Location:				
Location:				
Location:				
<b>Temporary Soil Stabilization</b>				
Does the applied temporary soil stabilization provide 100% coverage for the required areas?				
Are any non-vegetated areas that may require temporary soil stabilization?				

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
Is the area where temporary soil stabilization required free from visible erosion?				
Location:				
Location:				
Location:				
Location:				
<b>Temporary Linear Sediment Barriers</b>				
Are temporary linear sediment barriers properly installed in accordance with the details, functional and maintained?				
Are temporary linear sediment barriers free of accumulated litter?				
Is the built-up sediment less than 1/3 the height of the barrier?				
Are cross barriers installed where necessary and properly spaced?				
Location:				
Location:				
Location:				
Location:				
Location:				
<b>Storm Drain Inlet Protection</b>				
Are storm drain inlets internal to the project properly protected with either Type 1, 2 or 3 inlet protection?				
Are storm drain inlet protection devices in working order and being properly maintained?				
Location:				
Location:				
Location:				
Location:				
Location:				
<b>Desilting Basins</b>				
Are basins maintained to provide the required retention/detention?				
Are basin controls (inlets, outlets, diversions, weirs, spillways, and racks) in working order?				
Location:				
Location:				
Location:				
Location:				
<b>Stockpiles</b>				
Are all locations of temporary stockpiles, including soil, hazardous waste, and construction materials in approved areas?				
Are stockpiles protected from run-on, run-off from adjacent areas and from winds?				
Are stockpiles located at least 15 m from concentrated flows, downstream drainage courses and storm drain inlets?				
Are required covers and/or perimeter controls in place?				

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
Location:				
Location:				
Location:				
Location:				
<b>Concentrated Flows</b>				
Are concentrated flow paths free of visible erosion?				
Location:				
Location:				
Location:				
Location:				
<b>Tracking Control</b>				
Are points of ingress/egress to public/private roads inspected and swept and vacuumed daily?				
Are all paved areas free of visible sediment tracking or other particulate matter?				
Location:				
Location:				
Location:				
Location:				
<b>Wind Erosion Control</b>				
Is dust control implemented in conformance with Section 10 of the Standard Specifications?				
Location:				
Location:				
Location:				
Location:				
<b>Dewatering Operations</b>				
Is dewatering handled in conformance with the dewatering permit issued by the RWQCB?				
Is required treatment provided for dewatering effluent?				
Location:				
Location:				
Location:				
Location:				
<b>Vehicle &amp; Equipment Fueling, Cleaning, and Maintenance</b>				
Are vehicle and equipment fueling, cleaning and maintenance areas reasonably clean and free of spills, leaks, or any other deleterious material?				
Are vehicle and equipment fueling, cleaning and maintenance activities performed on an impermeable surface in dedicated areas?				
If no, are drip pans used?				

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
Are dedicated fueling, cleaning, and maintenance areas located at least 15 m away from downstream drainage facilities and water courses and protected from run-on and runoff?				
Is wash water contained for infiltration/ evaporation and disposed of outside the highway right of way?				
Is on-site cleaning limited to washing with water (no soap, soaps substitutes, solvents, or steam)?				
On each day of use, are vehicles and equipment inspected for leaks and if necessary, repaired?				
Location:				
Location:				
Location:				
Location:				
<b>Waste Management &amp; Materials Pollution Control</b>				
Are material storage areas and washout areas protected from run-on and runoff, and located at least 15 m from concentrated flows and downstream drainage facilities?				
Are all material handling and storage areas clean; organized; free of spills, leaks, or any other deleterious material; and stocked with appropriate clean-up supplies?				
Are liquid materials, hazardous materials, and hazardous wastes stored in temporary containment facilities?				
Are bagged and boxed materials stored on pallets?				
Are hazardous materials and wastes stored in appropriate, labeled containers?				
Are proper storage, clean-up, and spill-reporting procedures for hazardous materials and wastes posted in open, conspicuous and accessible locations adjacent to storage areas?				
Are temporary containment facilities free of spills and rainwater?				
Are temporary containment facilities and bagged/boxed materials covered?				
Are temporary concrete washout facilities designated and being used?				
Are temporary concrete washout facilities functional for receiving and containing concrete waste and are concrete residues prevented from entering the drainage system?				
Do temporary concrete washout facilities provide sufficient volume and freeboard for planned concrete operations?				
Are concrete wastes, including residues from cutting and grinding, contained and disposed of off-site or in concrete washout facilities?				
Are spills from mobile equipment fueling and maintenance properly contained and cleaned up?				
Is the site free of litter?				
Are trash receptacles provided in the Contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods?				
Is litter from work areas within the construction limits of the project site collected and placed in watertight dumpsters?				
Are waste management receptacles free of leaks?				
Are the contents of waste management receptacles properly protected from contact with storm water or from being dislodged by winds?				
Are waste management receptacles filled at or beyond capacity?				
Location:				

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
Location:				
Location:				
Location:				
<b>Temporary Water Body Crossing or Encroachment</b>				
Are temporary water body crossings and encroachments constructed as shown on the plans or as approved by the engineer?				
Does the project conform to the requirements of the 404 permit and/or 1601 agreement?				
Location:				
Location:				
Location:				
Location:				
<b>Illicit Connection/Illegal Discharge Detection and Reporting</b>				
Is there any evidence of illicit discharges or illegal dumping on the project site?				
If yes, has the Engineer been notified?				
Location:				
Location:				
Location:				
Location:				
<b>Discharge Points</b>				
Are discharge points and discharge flows free from noticeable pollutants?				
Are discharge points free of any significant erosion or sediment transport?				
Location:				
Location:				
Location:				
Location:				
<b>WPCP/SWPPP Update</b>				
Does the WPCP/SWPPP, Project Schedule/Water Pollution Control Schedule and WPCDs adequately reflect the current site conditions and contractor operations?				
Are all BMPs shown on the WPCDs installed in the proper location(s) and according to the details for the plan?				
Location:				
Location:				
Location:				
Location:				
<b>General</b>				
Are there any other potential water pollution control concerns at the site?				
Location:				
Location:				

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
Location:				
Location:				
<b>Storm Water Monitoring</b>				
Does storm water discharge directly to an impaired water body for Sedimentation/Siltation or Turbidity as listed in the General Construction Activity Permit?				
If yes, were samples for sedimentation/siltation or turbidity taken pursuant to the sampling and analysis plan, if required, during the rain event?				
Were there any BMPs not properly implemented or breaches, malfunctions, leakages or spills observed which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water?				
If yes, were samples for non-visually detectable pollutants taken pursuant to the sampling and analysis plan during the rain event?				
Were soil amendments (e.g. gypsum) used on the project?				
If yes, were samples for non-visually detectable pollutants taken pursuant to the sampling and analysis plan during the rain event?				
Did storm water contact stored materials or wastes and run off of the construction site? (Materials not in watertight containers, etc.)				
If yes, were samples for non-visually detectable pollutants taken pursuant to the sampling and analysis plan during the rain event?				

## Storm Water Task Force Inspection Checklists

## Area 1 – Non-Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

## COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

**NON-ACTIVE CONSTRUCTION AREAS**  
(AREAS NOT EXPECTED TO BE WORKED IN THE NEXT 21 DAYS)

**Note:** DSAs with a slope rate  $\leq 1:4$  must have required BMPs implemented 24 hours prior to a rain event. All other DSAs must be protected with the appropriate BMPs at all times.

## 1. SOIL STABILIZATION PRACTICES

For all DSAs:		<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented?		<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?		<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
		<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed:	<input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:	No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:			
Approved soil stabilization measures:	(A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.		

Key: (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

## 2. SEDIMENT CONTROL PRACTICES

[illegible]

Key: (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

<b>ACTIVE CONSTRUCTION AREAS</b> (AREAS CURRENTLY BEING WORKED OR NOT TO BE IDLE MORE THAN 21 DAYS)
--

**For Storm Inspection Type:** ☐ None:

Is the necessary supply of soil stabilization and sediment control measures readily available?	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

**For Storm Inspection Type:** ☐ Pre-, ☐ During-, and ☐ Post-:

**1. SOIL STABILIZATION PRACTICES (OTHER THAN DSA PROTECTION)**

Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**2. SEDIMENT CONTROL PRACTICES**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft): Is/Are linear barrier(s) properly implemented?	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**DESILTING BASINS – WHERE FEASIBLE, IMPLEMENT FOR PROTECTION OF DSAs**

For DSAs with a slope rate > 1:2 and a slope length > 15 m (50 ft): Is/Are desilting basin(s) properly implemented in addition to the linear sediment barrier(s)?	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharge: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:	No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____	
Further Explanation:		
Approved wind erosion control: (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

## 4. SEDIMENT TRACKING CONTROL

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:	No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____	
Further Explanation:		

Key: (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

## 5. NON-STORM WATER CONTROL &

## 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

Are the following BMPs properly implemented where required?

Temporary Stream Crossing	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

Are the following BMPs properly implemented where required?

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Areas 1 & 6 – Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

RECOMMENDED FOR RAIN REVIEW ☐[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

## COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

**NON-ACTIVE CONSTRUCTION AREAS**  
(AREAS NOT EXPECTED TO BE WORKED IN THE NEXT 21 DAYS)

## 1. SOIL STABILIZATION PRACTICES

For all DSAs:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
For required DSAs:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are fiber rolls or gravel bag berms properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed:	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:	No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)	
Further Explanation:		
Approved soil stabilization measures:	(A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.	

## 2. SEDIMENT CONTROL PRACTICES

[illegible]

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

<b>ACTIVE CONSTRUCTION AREAS</b> <b>(AREAS CURRENTLY BEING WORKED OR NOT TO BE IDLE MORE THAN 21 DAYS)</b>
---

**For Storm Inspection Type:** ☐ None:

Is the necessary supply of soil stabilization and sediment control measures readily available?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
--	------------------------------	-----------------------------

**For Storm Inspection Type:** ☐ Pre-, ☐ During-, and ☐ Post-:

**1. SOIL STABILIZATION PRACTICES**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:        No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved soil stabilization measures:        (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.		

**2. SEDIMENT CONTROL PRACTICES**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are linear sediment barrier(s) properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:        No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**DESILTING BASINS – WHERE FEASIBLE, IMPLEMENT FOR PROTECTION OF INDICATED DSAs**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are desilting basin(s) properly implemented in addition to linear sediment barrier(s)?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:        No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**Key:**    (1) Installed Incorrectly    (2) Wrong Location    (3) Lack of Maintenance    (4) Wrong Application    (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

### 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved wind erosion control:      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

### 4. TRACKING CONTROL PRACTICES

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

### 5. NON-STORM WATER CONTROL &

### 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

**Are the following BMPs properly implemented where required?**

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

**Are the following BMPs properly implemented where required?**

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Areas 2 & 4 – Non-Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved wind erosion control:                      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

## 4. SEDIMENT TRACKING CONTROL

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## 5. NON-STORM WATER CONTROL &

## 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

Are the following BMPs properly implemented where required?

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

Are the following BMPs properly implemented where required?

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Areas 2, 3, 4 & 5 – Rainy Season

### PROJECT INFORMATION SUMMARY SHEET

RECOMMENDED FOR RAIN REVIEW ☐

Project No.:		RE:	
Cnty., Rte. & P.M.:		Phone:	
SWTF Inspector(s):		Fax:	
Project Costs: Total \$ SWPPP \$		Contractor:	
Existing Disturbed Soil Area (DSA) Approved? <input type="checkbox"/> YES <input type="checkbox"/> NO		Superintendent:	
<input type="checkbox"/> SWPPP <input type="checkbox"/> WPCP Approved? <input type="checkbox"/> YES <input type="checkbox"/> NO		Phone:	
Other Permits:		Date:	
<b>Inspection Participant(s):</b> RE <input type="checkbox"/> Senior CE <input type="checkbox"/> Superintendent <input type="checkbox"/>		<b>Storm Inspection Type:</b> None <input type="checkbox"/> Pre- <input type="checkbox"/> During- <input type="checkbox"/> Post- <input type="checkbox"/>	
<b>Inspection Description:</b> Initial <input type="checkbox"/> Revisit <input type="checkbox"/>		<b>Last Inspection Rating</b>	
<b>Numeric Designation:</b> <input type="checkbox"/> <b>0</b> Substantial Compliance. Project is or is near completion <input type="checkbox"/> <b>1</b> Substantial Compliance. Schedule Revisit due to: <input type="checkbox"/> Low Activity Revisit _____ (Suggested Date). <input type="checkbox"/> Continuing Work Revisit next cycle. <input type="checkbox"/> <b>2</b> Minor deficiencies noted. Revisit next cycle or _____ (Suggested Date). <input type="checkbox"/> <b>3</b> Major deficiencies or discharge(s) noted and require prompt correction. If rain event occurs before correction of noted deficiencies, RE to notify the appropriate RWQCB. <b>Revisit within two (2) weeks.</b> <input type="checkbox"/> <b>4</b> Critical deficiencies or discharge(s) noted and require immediate correction. If rain event occurs before correction of noted deficiencies, RE to notify the appropriate RWQCB. <b>Revisit within one (1) week.</b>			
<b>Letter Designation:</b> <input type="checkbox"/> <b>A</b> Project's overall water pollution prevention effort is highly effective. <input type="checkbox"/> <b>B</b> Project's overall water pollution prevention effort is effective. <input type="checkbox"/> <b>C</b> Project's overall water pollution prevention effort is moderately effective. <input type="checkbox"/> <b>D</b> Project's overall water pollution prevention effort is ineffective. <input type="checkbox"/> <b>R</b> Present construction situation creates a risk of uncontrolled discharges during a rain event. <b>Revisit within two (2) weeks.</b>			
<b>Project Rating:</b>		Job description:	
Rating justification:			
		<input type="checkbox"/> Uncontrolled Discharge Noted	
Other observations:			

Date of last Construction Site Inspection conducted by Contractor personnel. \_\_\_\_\_

Date of last Construction Site Inspection conducted by Caltrans personnel. \_\_\_\_\_

## COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

**NON-ACTIVE CONSTRUCTION AREAS**  
(AREAS NOT EXPECTED TO BE WORKED IN THE NEXT 21 DAYS)

## 1. SOIL STABILIZATION MEASURES

For all DSAs:		<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented?		<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
For required DSAs:		<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are fiber rolls or gravel bag berms properly implemented?		<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with Additional BMPs, if needed, to reduce erosion?		<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
		<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed:		<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:	No.	Failed (or potential to fail) due to:	(1) ____ (2) ____ (3) ____ (4) ____ (5)
Further Explanation:			
Approved soil stabilization measures:	(A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.		

## 2. SEDIMENT CONTROL PRACTICES

[illegible]

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

<b>ACTIVE CONSTRUCTION AREAS</b> <b>(AREAS CURRENTLY BEING WORKED OR NOT TO BE IDLE MORE THAN 21 DAYS)</b>
---

**For Storm Inspection Type:** ☐ None:

Is the necessary supply of soil stabilization and sediment control measures readily available?	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

**For Storm Inspection Type:** ☐ Pre-, ☐ During-, and ☐ Post-:

**1. SOIL STABILIZATION PRACTICES – (DSA PROTECTION REQUIRED ONLY IN AREA 3)**

For DSAs with a slope rate > 1:2 and a slope length > 15.0 m (50 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented on the DSAs?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved soil stabilization measures:      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.		

**2. SEDIMENT CONTROL PRACTICES – (REQUIRED IN ALL AREAS)**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are linear sediment barrier(s) properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**DESILTING BASINS – WHERE FEASIBLE, IMPLEMENT FOR PROTECTION OF INDICATED DSAs**

For DSAs with a slope rate > 1:2 and a slope length > 15.0 m (50 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are desilting basin(s) properly implemented in addition to linear sediment barrier(s)?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved wind erosion control:      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

## 4. TRACKING CONTROL PRACTICES

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## 5. NON-STORM WATER CONTROL &

## 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

Are the following BMPs properly implemented where required?

Temporary Stream Crossing	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

Are the following BMPs properly implemented where required?

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Reportable	

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Areas 3 & 5 – Non-Rainy Season

### PROJECT INFORMATION SUMMARY SHEET

Project No.:		RE:
Cnty., Rte. & P.M.:		Phone:
SWTF Inspector(s):		Fax:
Project Costs: Total \$ SWPPP \$		Contractor:
Existing Disturbed Soil Area (DSA) Approved? <input type="checkbox"/> YES <input type="checkbox"/> NO		Superintendent:
<input type="checkbox"/> SWPPP <input type="checkbox"/> WPCP Approved? <input type="checkbox"/> YES <input type="checkbox"/> NO		Phone:
Other Permits:		Date:
<b>Inspection Participant(s):</b> RE <input type="checkbox"/> Senior CE <input type="checkbox"/> Superintendent <input type="checkbox"/>		<b>Storm Inspection Type:</b> None <input type="checkbox"/> Pre- <input type="checkbox"/> During- <input type="checkbox"/> Post- <input type="checkbox"/>
<b>Inspection Description:</b> Initial <input type="checkbox"/> Revisit <input type="checkbox"/>		<b>Last Inspection Rating</b>
<b>Numeric Designation:</b> <input type="checkbox"/> <b>0</b> Substantial Compliance. Project is or is near completion <input type="checkbox"/> <b>1</b> Substantial Compliance. Schedule Revisit due to: <input type="checkbox"/> Low Activity Revisit _____ (Suggested Date). <input type="checkbox"/> Continuing Work Revisit next cycle. <input type="checkbox"/> <b>2</b> Minor deficiencies noted. Revisit next cycle or _____ (Suggested Date). <input type="checkbox"/> <b>3</b> Major deficiencies or discharge(s) noted and require prompt correction. If rain event occurs before correction of noted deficiencies, RE to notify the appropriate RWQCB. <b>Revisit within two (2) weeks.</b> <input type="checkbox"/> <b>4</b> Critical deficiencies or discharge(s) noted and require immediate correction. If rain event occurs before correction of noted deficiencies, RE to notify the appropriate RWQCB. <b>Revisit within one (1) week.</b>		
<b>Letter Designation:</b> <input type="checkbox"/> <b>A</b> Project's overall water pollution prevention effort is highly effective. <input type="checkbox"/> <b>B</b> Project's overall water pollution prevention effort is effective. <input type="checkbox"/> <b>C</b> Project's overall water pollution prevention effort is moderately effective. <input type="checkbox"/> <b>D</b> Project's overall water pollution prevention effort is ineffective.		
<b>Project Rating:</b>	Job description:	
Rating justification:		
		<input type="checkbox"/> Uncontrolled Discharge Noted
Other observations:		

Date of last Construction Site Inspection conducted by Contractor personnel. \_\_\_\_\_

Date of last Construction Site Inspection conducted by Caltrans personnel. \_\_\_\_\_

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## NON-ACTIVE CONSTRUCTION AREAS

(AREAS NOT EXPECTED TO BE WORKED IN THE NEXT 21 DAYS)

**Note:** All DSAs must have required Sediment Control Practices implemented 24 hours prior to a rain event.

### 2. SEDIMENT CONTROL PRACTICES

For DSAs with a slope rate > 1:2 and a slope length > 3.0 m (10 ft): Is/Are linear sediment barriers properly implemented?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged:	<input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized <input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

### 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed: No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		
Approved wind erosion control: (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

### 4. SEDIMENT TRACKING CONTROL

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed: No. Failed (or potential to fail) due to: ____ (1) ____ (2) ____ (3) ____ (4) ____ (5)		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &  
6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL**

**Are the following BMPs properly implemented where required?**

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Area 6 – Non-Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## NON-ACTIVE CONSTRUCTION AREAS

(AREAS NOT EXPECTED TO BE WORKED IN THE NEXT 21 DAYS)

**Note:** DSAs with a slope rate  $\leq 1:4$  must have required BMPs implemented 24 hours prior to a rain event. All other DSAs must be protected with the appropriate BMPs at all times.

### 1. SOIL STABILIZATION PRACTICES

For all DSAs:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Are soil stabilization measures properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		
Approved soil stabilization measures: (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, and (F) Final Erosion Control Per the Plans and Specifications.		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

### 2. SEDIMENT CONTROL PRACTICES

For DSAs with a slope rate > 1:20 and a slope length > 3 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are linear sediment barrier(s) properly implemented?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		
<b>DESILTING BASINS – WHERE FEASIBLE, IMPLEMENT FOR PROTECTION OF DSAs</b>		
For DSAs with a slope rate > 1:2 and a slope length > 3 m (10 ft):	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Is/Are desilting basin(s) properly implemented in addition to the linear sediment barrier(s)?	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharge: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

<b>ACTIVE CONSTRUCTION AREAS</b> (AREAS CURRENTLY BEING WORKED OR NOT TO BE IDLE MORE THAN 21 DAYS)
--

**For Storm Inspection Type:** ☐ None:

Is the necessary supply of soil stabilization and sediment control measures readily available?	<input type="checkbox"/> Yes <input type="checkbox"/> No
--	--

**For Storm Inspection Type:** ☐ Pre-, ☐ During-, and ☐ Post-:

**1. SOIL STABILIZATION PRACTICES (OTHER THAN DSA PROTECTION)**

Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**2. SEDIMENT CONTROL PRACTICES**

For DSAs with a slope rate > 1:20 and a slope length > 3.0 m (10 ft):	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Are linear barriers properly implemented?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**DESILTING BASINS – WHERE FEASIBLE, IMPLEMENT FOR PROTECTION OF DSAs**

For DSAs with a slope rate > 1:2 and a slope length > 3 m (10 ft):	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Are desilting basins properly implemented in addition to the linear sediment barriers?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharged: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		
Approved wind erosion control:      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.		

## 4. SEDIMENT TRACKING CONTROL

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## 5. NON-STORM WATER CONTROL &

## 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

Are the following BMPs properly implemented where required?

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

Are the following BMPs properly implemented where required?

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Reportable	

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate		

## Area 7 – Year-Round

## PROJECT INFORMATION SUMMARY SHEET

[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:	No. Failed (or potential to fail) due to: _____ (1) _____ (2) _____ (3) _____ (4) _____ (5)	
Further Explanation:		
Approved wind erosion control:	(A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Wind Erosion Control.	

## 4. SEDIMENT TRACKING CONTROL

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:	No. Failed (or potential to fail) due to: _____ (1) _____ (2) _____ (3) _____ (4) _____ (5)	
Further Explanation:		

Key: (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

## 5. NON-STORM WATER CONTROL &

## 6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL

Are the following BMPs properly implemented where required?

Temporary Stream Crossing	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Clear Water Diversion	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Spill Prevention and Control	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Solid Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Hazardous Waste Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Contaminated Soil Management	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
Further Explanation:	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL (CONTINUED)**

**Are the following BMPs properly implemented where required?**

Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		

**Key:**      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate

## Water Pollution Control Program – Non-Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 1. SOIL STABILIZATION PRACTICES (OTHER THAN SLOPE PROTECTION)

Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:**    (1) Installed Incorrectly    (2) Wrong Location    (3) Lack of Maintenance    (4) Wrong Application    (5) Indeterminate

## 2. SEDIMENT CONTROL PRACTICES

For all Significantly Erodible Slopes: Is/Are linear sediment barrier(s) properly implemented?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharge: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:**    (1) Installed Incorrectly    (2) Wrong Location    (3) Lack of Maintenance    (4) Wrong Application    (5) Indeterminate

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		
Approved wind erosion control:      (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Dust Control per the Standard Specifications.		

## 4. TRACKING CONTROL PRACTICES

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:**    (1) Installed Incorrectly    (2) Wrong Location    (3) Lack of Maintenance    (4) Wrong Application    (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &  
6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL**

Are the following BMPs properly implemented where required?

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed: _____ No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate		

## Water Pollution Control Program – Rainy Season

## PROJECT INFORMATION SUMMARY SHEET

RECOMMENDED FOR RAIN REVIEW ☐[illegible]

Date of last Construction Site Inspection conducted by Contractor personnel.

Date of last Construction Site Inspection conducted by Caltrans personnel.

# COMPLIANCE INSPECTION CHECKLIST

Project No.:	Date:
--------------	-------

## 1. SOIL STABILIZATION PRACTICES

Are BMPs properly implemented on all inactive disturbed soil areas?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are BMPs properly implemented on all active disturbed soil areas, or is material available for use?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Are conveyances and discharge points for concentrated storm water flows protected with additional BMPs, if needed, to reduce erosion?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling erosion and sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Erosion Observed: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

## 2. SEDIMENT CONTROL PRACTICES

For all Significantly Erodible Slopes: Is/Are linear sediment barrier(s) properly implemented?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear to be effective in controlling sediment discharge?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sediment Discharge: <input type="checkbox"/> None <input type="checkbox"/> Minor <input type="checkbox"/> Major	<input type="checkbox"/> Localized	<input type="checkbox"/> Widespread
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

## 3. WIND EROSION CONTROL

Are wind erosion control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling wind erosion?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		
Approved wind erosion control: (A) Hydraulic Mulch, (B) Hydroseeding, (C) Soil Binders, (D) Straw Mulch, (E) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets, (F) Final Erosion Control Per the Plans and Specifications, and (G) Dust Control per the Standard Specifications.		

## 4. TRACKING CONTROL PRACTICES

Are sediment tracking control BMPs properly implemented throughout the construction site?	<input type="checkbox"/> 80%-100%	<input type="checkbox"/> 50%-65%
	<input type="checkbox"/> 65%-80%	<input type="checkbox"/> < 50 %
Do implemented BMPs appear effective in controlling sediment tracking?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed: No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Further Explanation:		

**Key:** (1) Installed Incorrectly (2) Wrong Location (3) Lack of Maintenance (4) Wrong Application (5) Indeterminate

**COMPLIANCE INSPECTION CHECKLIST**

Project No.:	Date:
--------------	-------

**5. NON-STORM WATER CONTROL &**

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL**

Are the following BMPs properly implemented where required?

Temporary Stream Crossing Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Clear Water Diversion Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Spill Prevention and Control Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Solid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Hazardous Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Contaminated Soil Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Concrete Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Sanitary/Septic Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Liquid Waste Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Materials Handling (Material Delivery & Storage and Material Use) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Vehicle and Equipment Operations (Cleaning, Fueling, and Maintenance) Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Paving Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Stockpile Management Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Water Conservation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Potable Water/Irrigation Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Dewatering Operations Further Explanation:	<input type="checkbox"/> 80%-100% <input type="checkbox"/> 65%-80%	<input type="checkbox"/> 50%-65% <input type="checkbox"/> < 50 %
Illicit Discharge/Illegal Dumping Reporting Further Explanation:	<input type="checkbox"/> YES <input type="checkbox"/> Not Reportable	<input type="checkbox"/> NO

Do implemented BMPs appear effective in controlling water pollution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Number of BMPs observed:                      No. Failed (or potential to fail) due to: (1) ____ (2) ____ (3) ____ (4) ____ (5) ____		
Key:      (1) Installed Incorrectly      (2) Wrong Location      (3) Lack of Maintenance      (4) Wrong Application      (5) Indeterminate		



## **APPENDIX D**

Sampling and Analysis Plan for Sediment Template  
Sampling and Analysis Plan for Non-Visible Pollutants Template  
Pollutant Testing Guidance Table

## Sampling and Analysis Plan for Sediment Template

## 600.4 Sampling and Analysis Plan for Sediment

### **INSTRUCTIONS:**

- If the project has the potential to discharge directly into a water body listed as impaired due to Sedimentation/Siltation or Turbidity pursuant to Section 303(d) of the Clean Water Act, the SWPPP must include a Sampling and Analysis Plan (SAP) for Sediment. The purpose of a SAP for Sediment is to determine if BMPs implemented on the construction site are effective for preventing impacts to levels of sedimentation/siltation or turbidity in 303(d) listed water bodies impaired by those pollutants.
  - Refer to the SWRCB web site at <http://www.swrcb.ca.gov/tmdl/docs/303d98.pdf> for the list of 303(d) water bodies in California. Determine if the project will discharge directly into one of the 303(d) water bodies listed as impaired due to Sedimentation/Siltation or Turbidity.
    - Direct discharge is defined as a point source or conveyance directly to the 303(d) listed water body that does not first flow through a tributary river or stream or combine with storm water from off-site in a municipal separate storm sewer system.
- Include the following required text to identify whether or not the project discharges directly to a 303(d) listed water body.

### **REQUIRED TEXT:**

This project [does/does not] have the potential to discharge directly to a water body listed as impaired due to Sedimentation/Siltation or Turbidity pursuant to Clean Water Act, Section 303(d).

### **INSTRUCTIONS:**

- If the project does not discharge to a 303(d) listed water body, delete Sections 600.4.1 through 600.4.9 from the template and continue with Section 600.5.
- If the project does discharge to a 303(d) listed water body, complete Sections 600.4.1 through 600.4.9 by following the instructions provided at the beginning of each section.

### **600.4.1 Scope of Monitoring Activities**

### **INSTRUCTIONS:**

- Provide the name(s) of the 303(d) listed water bodies and identify the reason for impairment.

- Describe the location(s) of direct discharge from the project site to the 303(d) water body and show the locations of direct discharge on the WPCDs in Attachment B.
- Include the appropriate required text to identify whether or not the storm water runs on to the Caltrans right-of-way that may combine with direct discharges to the 303(d) water body. If the project does receive run-on, describe the locations of run-on and show the locations of run-on on the WPCDs in Attachment B.

**REQUIRED TEXT:**

This project discharges directly into [*specify 303(d) water body*], a water body listed as impaired due to [*specify reason(s) for impairment: Sedimentation/Siltation or Turbidity*] pursuant to Clean Water Act, Section 303(d). This Sampling and Analysis Plan (SAP) describes the sampling and analysis strategy and schedule for monitoring [*specify impairment: Sedimentation/Siltation or Turbidity*] in the 303(d) listed water body from storm water discharges from the project site in accordance with the requirements of the General Permit and applicable requirements of the Caltrans *Guidance Manual: Stormwater Monitoring Protocols* (Second Edition, July 2000).

The project has the potential for direct (concentrated) storm water discharges to the [*specify 303(d) water body*] at the following locations, as shown on the WPCDs in Attachment B.

- 
- 
- 

**REQUIRED TEXT FOR PROJECTS THAT DO NOT RECEIVE RUN-ON:**

The project does not receive run-on with the potential to combine with storm water that discharges directly to the 303(d) listed water body.

**REQUIRED TEXT FOR PROJECTS THAT RECEIVE RUN-ON:**

The project receives run-on with the potential to combine with storm water that discharges directly to the 303(d) listed water body at the following locations, as shown on the WPCDs in Attachment B:

- 
- 
- 

## 600.4.2 Monitoring Strategy

**INSTRUCTIONS:**

- Describe the sampling schedule for monitoring the impacts of direct storm water discharges to the 303(d) water body.
- Describe the sampling locations for monitoring the impacts of direct storm water discharges from the project to the 303(d) water body.
  - Describe the rationale for the selection of sampling locations.
  - Identify a location upstream of all direct discharge from the construction site to analyze the prevailing condition of the receiving water without any influence from the construction site. Describe exactly where the sample will be collected. Note: Sampling too far upstream may not show prevailing conditions immediately upstream of the construction site.
  - Identify a location immediately downstream from the last point of direct discharge from the construction site to analyze potential impacts to the 303(d) listed water body from the project. Describe exactly where the sample will be collected. Note: Sampling too far downstream may pickup other impacts from other discharges in the sample.
  - For projects that identified locations of run-on to the Caltrans right-of-way in Section 600.4.1, include the required text to identify run-on sampling location(s) to identify potential impairment that originates off the project site. Describe exactly where the sample will be collected.
  - Show all sampling locations on the WPCDs in Attachment B.
    - Locate sampling locations in areas that are safe, out of the path of heavy traffic, and attainable access.
    - Pay attention to surrounding areas such as agricultural fields, or other sites that may contribute run-on sediment to the site.

<b>REQUIRED TEXT:</b>
-----------------------

### **Sampling Schedule**

Upstream, downstream and run-on samples, if applicable, shall be collected for [*specify impairment: Sedimentation/Siltation or Turbidity*] during the first two hours of discharge from rain events which result in a direct discharge from the project site to the [*enter 303(d) water body*]. Samples shall be collected during daylight hours (sunrise to sunset) and shall be collected regardless of the time of the year, status of the construction site, or day of the week.

All storm events that occur during daylight hours will be sampled up to a maximum of four rain events within a 30-day period. In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 hours of dry weather will be used to distinguish between separate rain events.

## **Sampling Locations**

Sampling locations are based on proximity to identified discharge or run-on location(s), accessibility for sampling, personnel safety, and other factors in accordance with the applicable requirements in the Caltrans *Guidance Manual: Stormwater Monitoring Protocols*. Sampling locations are shown on the WPCDs in Attachment B and include:

- A sample location (designated number \_\_\_\_\_) is upstream of all direct discharge from the construction site for the collection of a control sample to be analyzed for the prevailing condition of the receiving water without any influence from the construction site. The control sample will be used to determine the relative impacts of [*specify impairment: Sedimentation/Siltation or Turbidity*] to the 303(d) listed water body upstream to the project, if any.
  - Sample location number \_\_\_\_\_ is located \_\_\_\_\_.
- A sample location (designated number \_\_\_\_\_) is immediately downstream from the last point of direct discharge from the construction site for the collection of a sample to be analyzed for potential impacts of [*specify impairment: Sedimentation/Siltation or Turbidity*] to the 303(d) listed water body from the project, if any.
  - Sample location number \_\_\_\_\_ is located \_\_\_\_\_.

### **REQUIRED TEXT ONLY FOR PROJECTS THAT RECEIVE RUN-ON:**

- [*Enter number of location(s)*] sampling location(s) (designated number(s) \_\_\_\_\_) [*has or have*] been identified for the collection of samples of run-on to the Caltrans right-of-way with the potential to combine with discharges from the construction site to the 303(d) water body. These samples would be expected to identify potential [*specify impairment: Sedimentation/Siltation or Turbidity*] that originates off the project site and contributes to direct storm water discharges from the construction site to the 303(d) listed water body.
  - Sample location number \_\_\_\_\_ is located \_\_\_\_\_.
  - [If needed] Sample location number \_\_\_\_\_ is located \_\_\_\_\_.
  - [If needed] Sample location number \_\_\_\_\_ is located \_\_\_\_\_.

## **600.4.3 Monitoring Preparation**

### **INSTRUCTIONS:**

- Identify whether samples will be collected by contractor personnel or by a commercial laboratory or environmental consultant.
  - Individuals must have appropriate training and experience in collecting water samples and the contractor's health and safety plan for the project must address applicable safety procedures.

- Designate alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Alternates need to be similarly trained as the primary samplers.
- For a the list of California state-certified laboratories that are accepted by Caltrans, access the following web site:  
[www.dhs.ca.gov/ps/ls/elap/html/lablist\\_county.htm](http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm)
- Include the appropriate required text to describe the strategy for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.
- Describe the strategy for ensuring that appropriate field testing equipment is available to the project in preparation for a sampling event.
- Contact local environmental equipment rental company, such as [www.totalsafetyinc.com](http://www.totalsafetyinc.com).

<p><b>REQUIRED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES:</b></p>
---

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number: \_\_\_\_\_  
 Name/Telephone Number: \_\_\_\_\_  
 Alternate(s)/Telephone Number: \_\_\_\_\_  
 Alternate(s)/Telephone Number: \_\_\_\_\_

Prior to the rainy season, all sampling personnel and alternates will review the SAP. Qualifications of designated contractor personnel describing environmental sampling training and experience are provided in Attachment I.

An adequate stock of supplies and equipment for monitoring [specify impairment: Sedimentation/Siltation or Turbidity] will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool-temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

Supplies maintained at the project site will include, but will be not limited to, surgical gloves, sample collection equipment (bailers, etc.), coolers, appropriate number and volume of sample bottles, identification labels, resealable storage bags, paper towels, personal rain gear, ice, Sampling Activity Log forms, and Chain of Custody (COC) forms.

The contractor will obtain and maintain the field testing instruments, as identified in Section 600.4.5, for analyzing samples in the field by contractor sampling personnel.

Safety practices for sample collection will be in accordance with the [enter title and publication date of contactor health and safety plan for the project].

**REQUIRED TEXT ONLY IF CONSULTANT OR LABORATORY WILL COLLECT SAMPLES:**

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_

Qualifications of designated sampling personnel describing environmental sampling training and experience are provided in Attachment I.

WPCM will contact [specify name of laboratory or environmental consultant] \_\_\_ hours prior to a predicted rain event to ensure that adequate sample collection personnel, supplies and field test equipment for monitoring [specify impairment: Sedimentation/Siltation or Turbidity] are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

[Specify name of laboratory or environmental consultant] will obtain and maintain the field testing instruments, as identified in Section 600.4.5, for analyzing samples in the field by their sampling personnel.

#### **600.4.4 Sample Collection and Handling**

**INSTRUCTIONS:**

- Describe sample collection procedures to be used on the project.
  - For sample collection procedures, refer to the Caltrans *Guidance Manual: Stormwater Monitoring Protocols* (Second Edition, July 2000) for general guidance.
    - Run-on samples could be collected using the following:
      - Place several rows of sand bags in a half circle directly in the path of the run-on to pond water and wait for enough water to spill over. Then place a cleaned or decontaminated flexible hose along the top and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Make sure to not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
      - Place a cleaned or decontaminated dust pan with open handle in the path of the run-on so that water will pour through the handle and into sample bottles.
    - If not using clean equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

- ❑ For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
  - ❑ For a the list of California state-certified laboratories that are accepted by Caltrans, access the following web site:  
[www.dhs.ca.gov/ps/ls/elap/html/lablist\\_county.htm](http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm)
- Describe sample handling procedures.
- Describe sample collection documentation procedures.
  - ❑ Describe procedures for recording and correcting sampling data.
  - ❑ A Chain of Custody (COC) form is required to be submitted to the laboratory with the samples to trace the possession and handling of samples from collection through analysis.
  - ❑ A Sampling Activity Log is required to document details of all sampling events and to record results for samples analyzed in the field.
  - ❑ Each sample bottle is required to have a proper and complete identification label.

<b>REQUIRED TEXT:</b>
-----------------------

### **Sample Collection Procedures**

Grab samples will be collected and preserved in accordance with the methods identified in the “Sample Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and Turbidity” table provided in section 600.4.5. Only personnel trained in proper water quality sampling will collect samples.

Upstream samples will be collected to represent the condition of the stream upgradient of the construction site. Downstream samples will be collected to represent the stream water mixed with direct flow from the construction site. Samples will not be collected directly from ponded, sluggish, or stagnant water.

Upstream and downstream samples will be collected using one of the following methods:

- Placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel, and allowing the sample bottle to fill completely; OR,
- Placing a decontaminated or ‘sterile’ bailer or other ‘sterile’ collection device in or near the main current to collect the sample, and then transferring the collected water to appropriate sample bottles, allowing the sample bottles to fill completely.

Run-on samples, if applicable, will be collected to identify potential sedimentation/siltation or turbidity that originates off the project site and contributes to direct discharges from the construction site to the 303(d) listed water body. Run-on samples will be collected by pooling or ponding water and allowing the ponded water to flow over while placing sample bottles directly

into a stream of water downgradient and within close proximity to the point of run-on to the Caltrans right-of-way.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for an extended period of time once samples are placed inside.
- Not touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rain water to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- Not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

### **Sample Handling Procedures**

***REQUIRED TEXT ONLY IF LABORATORY WILL ANALYZE ALL OR SOME OF THE SAMPLES:***

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain-of-Custody form provided by the analytical laboratory, sealed in a resealable plastic storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Laboratory Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_

***REQUIRED TEXT ONLY IF CONTRACTOR WILL ANALYZE ALL OR SOME OF THE SAMPLES:***

Immediately following collection, samples for field analysis will be tested in accordance with field instrument manufacturer's instructions and results recorded on the Sampling Activity Log.

<b>REQUIRED TEXT:</b>
-----------------------

### **Sample Documentation Procedures**

All original data documented on sample bottle identification labels, Chain-of-Custody forms, Sampling Activity Logs, and Inspection Checklists will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. Copies of the Chain of Custody form and Sampling Activity Log are provided in Attachment I.

Sampling and field analysis activities will be documented using the following:

- **Sample Bottle Identification Labels:** Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on the label, as appropriate:
  - Project name
  - Project number
  - Unique sample identification number and location. [Caltrans Number]-[Six digit sample collection date]-[Location] (*Example: 07-0G5304-081801-Upstream*). Quality assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation (*Example: 07-0G5304-081801-DUP1*).
  - Collection date/time (No time applied to QA/QC samples)
  - Analysis constituent
- **Sampling Activity Logs:** A log of sampling events will identify:
  - Sampling date
  - Separate times for sample collection of upstream, downstream, run-on, and QA/QC samples recorded to the nearest minute
  - Unique sample identification number and location
  - Analysis constituent
  - Names of sampling personnel
  - Weather conditions (including precipitation amount)
  - Field analysis results
  - Other pertinent data
- **Chain-of-Custody (COC) forms:** All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly adhered to for QA/QC purposes.
- **Storm Water Quality Construction Inspection Checklists:** When applicable, the contractor's storm water inspector will document on the checklist that samples for sedimentation/siltation or turbidity were taken during a rain event.

#### **600.4.5 Sample Analysis**

<b><i>INSTRUCTIONS:</i></b>
-----------------------------

- Identify the tests to be used on the project by completing the “Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and Turbidity” table.
  - For 303(d) listed water bodies impaired due to Sedimentation/Siltation, select YES for (a) OR YES for both (b) and (c).
  - For 303(d) listed water bodies impaired due to Turbidity, select YES for (d).
  - For each test selected, fill in the blank fields in the table. Contact the selected laboratory for the specifications to obtain the necessary information.

<b><i>REQUIRED TEXT:</i></b>
------------------------------

Samples will be analyzed for the constituents indicated in the “Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation and Turbidity” table in this section.

## Sample Collection, Preservation and Analysis for Monitoring Sedimentation/Siltation or Turbidity

Constituent	Analytical Method	Test to be Used?	Sample Preservation	Minimum Sample Volume	Sample Bottle	Maximum Holding Time	Reporting Limit
(a) Suspended Sediment Concentration (SSC)	ASTM D3977-97	<input type="checkbox"/> YES <input type="checkbox"/> NO	Store at 4° C (39.2° F)				
(b) Settleable Solids (SS)	EPA 160.5 Std Method 2540(f)	<input type="checkbox"/> YES <input type="checkbox"/> NO	Store at 4° C (39.2° F)				_____ mL/L/hr
(c) Total Suspended Solids (TSS)	EPA 160.2 Std Method 2540(d)	<input type="checkbox"/> YES <input type="checkbox"/> NO	Store at 4° C (39.2° F)				_____ mg/L
(d) Turbidity	EPA 180.1 Std Method 2130(b)	<input type="checkbox"/> YES <input type="checkbox"/> NO	Store at 4° C (39.2° F)				_____ NTU

**Notes:**    American Society for Testing and Materials

ASTM    –    Degrees Celsius

°C        –    Degrees Fahrenheit

°F        –    U.S. Environmental Protection Agency

EPA      –    Liter

L         –    Milliliters per liter per hour

mg/L

mL

NTU

Std Method

–    Milligrams per liter

–    Milliliters

–    Nephelometric Turbidity Unit

–    Per the *Standard Methods for the Examination of Water and Wastewater*, 20<sup>th</sup> Edition, American Water Works Association

For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with field instrument manufacturer's specifications.

The following field instruments will be used to analyzed the following constituents:

Field Instrument	Constituent
<u>[Fill in]</u>	<u>[Fill in]</u>
<u>[Fill in, if needed]</u>	<u>[Fill in, if needed]</u>
<u>[Fill in, if needed]</u>	<u>[Fill in, if needed]</u>

- The instruments will be maintained in accordance with manufacturer's instructions.
- The instrument(s) will be calibrated before each sampling and analysis event.
- Maintenance and calibration records will be maintained with the SWPPP.

#### **600.4.6 Quality Assurance/Quality Control**

For an initial verification of laboratory or field analysis, duplicate samples will be collected at a rate of 10 percent or 1 duplicate per sampling event. The duplicate sample will be collected, handled, and analyzed using the same protocols as primary samples, and will be collected where contaminants are likely, not on the upstream sample. A duplicate sample will be collected immediately after the primary sample has been collected. Duplicate samples will not influence any evaluations or conclusions, however, they will be used as a check on laboratory quality assurance.

#### **600.4.7 Data Management and Reporting**

A copy of all water quality analytical results and QA/QC data will be submitted to the Resident Engineer within 5 days of sampling (for field analyses) and within 30 days (for laboratory analyses).

Electronic results will be submitted on diskette in Microsoft Excel (.xls) format, and will include, at a minimum, the following information from the lab: Sample ID Number, Contract Number, Constituent, , Reported Value, Lab Name, Method Reference, Method Number, Method Detection Limit, and Reported Detection.

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, shall be kept with the SWPPP document, which is to remain at the construction site at all times until a Notice of Construction Completion has been submitted and approved.

Electronic results will be e-mailed to [Name] of [Company] at [email address] after final sample results are received after each sampling event for inclusion into a statewide database.

#### **600.4.8 Data Evaluation**

- The General Permit requires that BMPs be implemented on the construction site to prevent a net increase of sediment load in storm water discharges relative to pre-construction levels. The upstream sample, while not representative of pre-construction

levels, provides a basis for comparison with the sample collected downstream of the construction site.

- The downstream water quality sample analytical results will be evaluated to determine if the downstream sample(s) show significantly elevated levels of the tested constituent relative to the levels found in the upstream (control) sample. The run-on sample analytical results will be used as an aid in evaluating potential offsite influences on water quality results.

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted to the Resident Engineer with the water quality analytical results and the QA/QC data for every event that samples are collected. As determined by the data evaluation, appropriate BMPs will be repaired or modified to address increases in sediment concentrations in the water body. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

Should the downstream sample concentrations exceed the upstream sample concentrations, the water pollution control manager or other personnel will evaluate the BMPs, site conditions, surrounding influences (as at least partially documented by the run-on sample results), and other site factors to determine the probable cause for the increase.

#### **600.4.9 Change Of Conditions**

Whenever SWPPP monitoring, pursuant to Section B of the General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

## Sampling and Analysis Plan for Non-Visible Pollutants Template

## 600.5 Sampling and Analysis Plan for Non-Visible Pollutants

### **INSTRUCTIONS:**

- If the project has the potential to discharge non-visible pollutants with storm water off the construction site, the SWPPP must include a Sampling and Analysis Plan (SAP) for Non-Visible Pollutants. The purpose of a SAP for Non-Visible Pollutants is to determine if BMPs implemented on the construction site are effective for preventing non-visible pollutants from impacting water quality objectives. The project SWPPP must include a SAP for Non-Visible Pollutants.

### **REQUIRED TEXT:**

There is the potential to discharge non-visible pollutants with storm water discharges from the construction site and/or the contractor's yard. This Sampling and Analysis Plan (SAP) for Non-Visible Pollutants describes the sampling and analysis strategy and schedule for monitoring non-visible pollutants in storm water discharges from the project site and the contractor's yard in accordance with the requirements of Section B of the General Permit and applicable requirements of the Caltrans *Guidance Manual: Stormwater Monitoring Protocols*, Second Edition (July 2000).

### 600.5.1 Scope of Monitoring Activities

### **INSTRUCTIONS:**

- Identify the general sources and locations of potential non-visible pollutants on the project in the following categories:
  - Materials, wastes or activities as identified in Section 500.3.1.
  - Existing site features contaminated with non-visible pollutants as identified in Section 500.3.3.
  - Applications of soil amendments/stabilizers that have the potential to alter pH or have unacceptable concentrations of non-visible pollutants.
    - Certain soil amendments/stabilizers and soil stabilizers, when sprayed on straw or mulch, are considered *visible* pollutants and are not subject to water quality monitoring requirements.
    - If independent test data are available that demonstrate that the soil amendment does not discharge unacceptable levels of pollutants, it is not subject to water quality monitoring.

**EXAMPLE:**

The following construction materials, wastes or activities, as identified in Section 500.3.1, are potential sources of non-visible pollutants to storm water discharges from the project. Storage, use and operational locations are shown on the WPCDs in Attachment B.

- Solvents, thinners
- Concrete curing
- Treated wood
- Asphalt
- PCC
- Metals and plated products
- Lime treated subgrade
- Fertilizers, herbicides, and pesticides

The following existing site features, as identified in Section 500.3.3, are potential sources of non-visible pollutants to storm water discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the WPCDs in Attachment B.

- Southwest portion of the construction site was previously used as a municipal landfill until 1987 and may have volatile organics in the soil.
- North portion of the construction site was a storage area for a metal plating shop until 1960 and may have metals in the soil.

The following soil amendments/stabilizers have the potential to alter pH or have unacceptable concentrations of non-visible pollutants and will be used on the project. Locations of soil amendment application are shown on the WPCDs in Attachment B.

- None
- 

The project has the potential to receive storm water run-on with the potential to contribute non-visible pollutants to storm water discharges from the project. Locations of such run-on to the Caltrans right of way are shown on the WPCDs in Attachment B.

- One location downgradient of the Nasty Chemical Company chemical plant and the Progress Industrial Park is identified as a run-on location to the construction site.
- Two locations are identified as run-on locations along the eastern edge of the construction site boundary.
- The northern boundary of the construction site has one location where run-on is likely.

**REQUIRED TEXT:**

The following construction materials, wastes or activities, as identified in Section 500.3.1, are potential sources of non-visible pollutants to storm water discharges from the project. Storage, use and operational locations are shown on the WPCDs in Attachment B.

- 
- 
- 

The following existing site features, as identified in Section 500.3.3, are potential sources of non-visible pollutants to storm water discharges from the project. Locations of existing site features contaminated with non-visible pollutants are shown on the WPCDs in Attachment B.

- 
- 
- 

The following soil amendments/stabilizers have the potential to alter pH or have unacceptable concentrations of non-visible pollutants and will be used on the project. Locations of soil amendment application are shown on the WPCDs in Attachment B.

- 
- 
- 

The project has the potential to receive storm water run-on with the potential to contribute non-visible pollutants to storm water discharges from the project. Locations of such run-on to the Caltrans right of way are shown on the WPCDs in Attachment B.

- 
- 
- 

#### **600.5.2 Monitoring Strategy**

**INSTRUCTIONS:**

- Describe the sampling schedule for monitoring potential non-visible pollutants in storm water runoff. Note the specific conditions under which a sampling event for non-visible pollutants is triggered.
- Describe the sampling locations for monitoring non-visible pollutants.
  - Describe the rationale for the selection of sampling locations.

- ❑ Identify a location for collecting samples of storm water run-off from each location of non-visible pollutant identified in Section 600.5.1. Describe exactly where the sample will be collected.
- ❑ Identify a location for collecting an uncontaminated background sample of run-off that has not come into contact with the non-visible pollutants identified in Section 600.5.1 or disturbed soil areas of the project. Describe exactly where the sample will be collected.
- ❑ Identify a location for collecting samples of storm water run-on from each of the locations identified in Section 600.5.1 to identify possible sources of contamination that may originate from off the project site. Describe exactly where the sample will be collected.
- ❑ Identify sampling locations in the contractor's yard, whether or not it is located on the Caltrans right of way.
- ❑ Show all sampling locations on the WPCDs in Attachment B.
  - Locate sampling locations in areas that are safe, out of the path of heavy traffic, and have attainable access.
  - Pay attention to surrounding areas such as agricultural fields that may be sprayed with pesticides, or industrial sites that may contribute run-on or airborne constituents to the site.

**REQUIRED TEXT:**

### **Sampling Schedule**

Samples for the applicable non-visible pollutant(s) and a sufficiently large uncontaminated background sample shall be collected during the first two hours of discharge from rain events which result in a sufficient discharge for sample collection. Samples shall be collected during daylight hours (sunrise to sunset) and shall be collected regardless of the time of year, status of the construction site, or day of the week.

In conformance with the U.S. Environmental Protection Agency definition, a minimum of 72 hours of dry weather will be used to distinguish between separate rain events.

Collection of discharge samples for non-visible pollutant monitoring will be triggered when any of the following conditions are observed during the required inspections conducted before or during rain events:

- Materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight condition is defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents storm water contact and runoff from the storage area.
- Materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, leakage, malfunction, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of pollutants to surface waters or a storm sewer system.

- An operational activity with the potential to contribute non-visible pollutants (1) was occurring just prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of pollutants to surface waters or a storm sewer system.
- Soil amendments/stabilizers that have the potential to alter pH levels or have unacceptable concentrations of non-visible pollutants have been applied, and there is the potential for discharge of pollutants to surface waters or a storm sewer system
- Storm water runoff from an area contaminated by historical usage of the site has been observed to combine with storm water runoff, and there is the potential for discharge of pollutants to surface waters or a storm sewer system.

### **Sampling Locations**

Sampling locations are based on proximity to planned non-visible pollutant storage, occurrence or use; accessibility for sampling, personnel safety; and other factors in accordance with the applicable requirements in the Caltrans *Guidance Manual: Stormwater Monitoring Protocols*. Planned sampling locations are shown on the WPCDs in Attachment B and include the following:

- [Enter number of location(s)] sampling location(s) (designated number(s) \_\_\_\_\_) on the project site and the contractor's yard [has or have] been identified for the collection of samples of runoff from planned material and waste storage areas and from areas where non-visible pollutant producing operations are planned.
  - [If applicable] Sample location number(s) \_\_\_\_\_ is located \_\_\_\_\_.
- [Enter number of locations] sampling locations have been identified for the collection of samples of runoff that drain areas contaminated by historical usage of the site.
  - [If applicable] Sample location number(s) \_\_\_\_\_ is located \_\_\_\_\_.
- [Enter number of locations] sampling locations have been identified for the collection of samples of runoff that drain areas where soil amendments/stabilizers that have the potential to alter pH or have unacceptable concentrations of non-visible pollutants will be applied.
  - [If applicable] Sample location number(s) \_\_\_\_\_ is located \_\_\_\_\_.
- [Enter number of locations] sampling locations have been identified for the collection of samples of run-on to the Caltrans right-of-way with the potential to combine with discharges being sampled for non-visible pollutants. These samples would be expected to identify sources of potential non-visible pollutants that originate off the project site.
  - [If applicable] Sample location number(s) \_\_\_\_\_ is located \_\_\_\_\_.
- A location has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for pollutants. This location was selected such that the sample will not have come in contact with (1) operational or storage areas associated with the materials, wastes, and activities identified in Section 500.3.1; (2) potential pollutants due to historical use of the site as identified in Section 500.3.3; (3) areas in which soil amendments/stabilizers that have the potential to alter pH levels or have unacceptable concentrations of non-visible pollutants have been applied; or (4) disturbed soils areas.
  - [If applicable] Sample location number \_\_\_\_\_ is located \_\_\_\_\_.

If a storm water inspection before or during a rain event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm sewer system that was an unplanned location and has not been identified on the WPCDs, sampling locations will be selected using the same rationale as that used to identify planned locations.

### 600.5.3 Monitoring Preparation

#### **INSTRUCTIONS:**

- Identify whether samples will be collected by contractor personnel or by a commercial laboratory or environmental consultant.
  - Individuals must have appropriate training and experience in collecting water samples and the contractor's health and safety plan for the project must address applicable safety procedures.
    - Designate alternate sampling personnel in case of emergency, sick leave, and/or vacations during storm water monitoring. Alternates need to be similarly trained as the primary samplers.
  - For a the list of California state-certified laboratories that are accepted by Caltrans, access the following web site:  
[www.dhs.ca.gov/ps/ls/elap/html/lablist\\_county.htm](http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm)
- Include the appropriate required text to describe the strategy for ensuring that adequate sample collection supplies are available to the project in preparation for a sampling event.
- Describe the strategy for ensuring that appropriate field testing equipment is available to the project in preparation for a sampling event.
  - Contact local environmental equipment rental company, such as [www.totalsafetyinc.com](http://www.totalsafetyinc.com).

#### **REQUIRED TEXT IF CONTRACTOR PERSONNEL WILL COLLECT SAMPLES:**

Samples on the project site will be collected by the following contractor sampling personnel:

Name/Telephone Number: \_\_\_\_\_  
Name/Telephone Number: \_\_\_\_\_  
Alternate(s)/Telephone Number: \_\_\_\_\_  
Alternate(s)/Telephone Number: \_\_\_\_\_

Prior to the rainy season, all sampling personnel and alternates will review the SAP Qualifications of designated contractor personnel describing environmental sampling training and experience are provided in Attachment I.

An adequate stock of monitoring supplies and equipment for monitoring non-visible pollutants will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool-temperature environment that will not come into contact with rain or direct sunlight. Sampling personnel will be available to collect samples in accordance with the sampling schedule.

Supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment (bailers, etc.), coolers, appropriate number and volume of sample bottles, identification labels, resealable storage bags, paper towels, personal rain gear, ice, Sampling Activity Log forms, and Chain of Custody (COC) forms.

The contractor will obtain and maintain the field testing instruments, as identified in Section 600.5.6, for analyzing samples in the field by contractor sampling personnel.

Safety practices for sample collection will be in accordance with the [enter title and publication date of contractor health and safety plan for the project].

**REQUIRED TEXT IF CONSULTANT OR LABORATORY WILL COLLECT SAMPLES:**

Samples on the project site will be collected by the following [specify laboratory or environmental consultant]:

Company Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_

Qualifications of designated sampling personnel describing environmental sampling training and experience are provided in Attachment I.

WPCM will contact [specify name of laboratory or environmental consultant] \_\_\_ hours prior to a predicted rain event and if one of the triggering conditions is identified during an inspection before, during, or after a storm event to ensure that adequate sample collection personnel, supplies and field test equipment for monitoring non-visible pollutants are available and will be mobilized to collect samples on the project site in accordance with the sampling schedule.

[Specify name of laboratory or environmental consultant] will obtain and maintain the field testing instruments, as identified in Section 600.5.6, for analyzing samples in the field by their sampling personnel.

#### **600.5.4 Analytical Constituents**

**INSTRUCTIONS:**

- Identify the specific non-visible pollutants on the project by completing the “Potential Non-Visible Pollutants and Water Quality Indicator Constituents” table.
  - List the pollutant source, pollutant name, and water quality indicator
  - Refer to the “Construction Material and Pollutant Testing Guidance Table - Non-Visible Pollutants” for a partial list of some of the common non-visible pollutants.
  - Add lines to the table as needed.
  - Do not include visible pollutants such as:
    - Petroleum products: gas, diesel, and lubricants
    - Colored paints
    - Sand, gravel or topsoil
    - Asphalt cold mix

**REQUIRED TEXT:****Identification of Non-Visible Pollutants**

The following table lists the specific sources of and types of potential non-visible pollutants on the project and the applicable water quality indicator constituent(s) for that pollutant.

**Potential Non-Visible Pollutants and Water Quality Indicator Constituents**

<b>Pollutant Source</b>	<b>Pollutant</b>	<b>Water Quality Indicator Constituent</b>
<i>Example:</i> Vehicle batteries	Sulfate or pH	Sulfuric acid or pH

**600.5.5 Sample Collection and Handling****INSTRUCTIONS:**

- Describe sample collection procedures to be used on the project.
  - ❑ For sampling collection procedures, refer to the Caltrans *Guidance Manual: Stormwater Monitoring Protocols* (Second Edition, July 2000) for general guidance.
    - Run-on samples could be collected using the following:
      - Place several rows of sand bags in a half circle directly in the path of the run-on to pond water and wait for enough water to spill over. Then place a decontaminated or clean flexible hose along the top and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Make sure to not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
      - Place a decontaminated or clean dust pan with open handle in the path of the run-on so that water will pour through the handle and into sample bottles.
    - If not using clean equipment, decontaminate by washing equipment in a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.
  - ❑ For laboratory analysis, all sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136.
  - ❑ For a the list of California state-certified laboratories that are accepted by Caltrans, access the following web site:  
[www.dhs.ca.gov/ps/ls/elap/html/lablist\\_county.htm](http://www.dhs.ca.gov/ps/ls/elap/html/lablist_county.htm)
- Describe sample handling procedures.
- Describe sample collection documentation procedures.
  - ❑ Describe procedures for recording and correcting sampling data.
  - ❑ A Chain of Custody (COC) form is required to be submitted to the laboratory with the samples to trace the possession and handling of samples from collection through analysis.
  - ❑ A Sampling Activity Log is required to document details of all sampling events and to record results for samples analyzed in the field.
  - ❑ Each sample bottle is required to have a proper and complete identification label.

**REQUIRED TEXT:**

### **Sample Collection Procedures**

Samples of discharge will be collected at the designated sampling locations shown on the WPCDs in Attachment B for locations of observed breaches, malfunctions, leakages, spills, operational areas, soil amendment application areas, and historical site usage areas that triggered the sampling event.

Grab samples will be collected and preserved in accordance with the methods identified in the "Sample Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" table provided in section 600.5.6. Only personnel trained in proper water quality sampling will collect samples.

Samples will be collected by placing a separate lab-provided sample container directly into a stream of water downgradient and within close proximity to the potential non-visible pollutant discharge location. This separate lab-provided sample container will be used to collect water which will be transferred to sample bottles for laboratory analysis. The upgradient and uncontaminated background samples shall be collected first prior to collecting the downgradient to minimize cross-contamination. The sampling personnel will collect the water upgradient of where they are standing. Once the separate lab-provided sample container is filled, the water sample will be poured directly into sample bottles provided by the laboratory for the analyte(s) being monitored. Sample bottles will be filled completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for an extended period of time once samples are placed inside.
- Not sample near a running vehicle where exhaust fumes may impact the sample.
- Not touch the exposed end of a sampling tube, if applicable.
- Avoid allowing rain water to drip from rain gear or other surfaces into sample bottles.
- Not eat, smoke, or drink during sample collection.
- Not sneeze or cough in the direction of an open sample bottle.
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample.
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water.

### **Sample Handling Procedures**

***REQUIRED TEXT ONLY IF A LABORATORY WILL ANALYZE ALL OR SOME OF THE SAMPLES:***

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain-of-Custody form provided by the analytical laboratory, sealed

in a resealable storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to the following California state-certified laboratory:

Laboratory Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Point of Contact: \_\_\_\_\_

**REQUIRED TEXT ONLY IF CONTRACTOR WILL ANALYZE SOME OR ALL SAMPLES:**

Immediately following collection, samples for field analysis will be tested in accordance with field instrument manufacturer's instructions and results recorded on the Sampling Activity Log.

**REQUIRED TEXT:**

### **Sample Documentation Procedures**

All original data documented on sample bottle identification labels, Chain-of-Custody forms, Sampling Activity Logs, and Inspection Checklists will be recorded using waterproof ink. These will be considered accountable documents. If an error is made on an accountable document, the individual will make corrections by lining through the error and entering the correct information. The erroneous information will not be obliterated. All corrections will be initialed and dated. Copies of the Chain of Custody form and Sampling Activity Log are provided in Attachment I.

Sampling and field analysis activities will be documented using the following:

- **Sample Bottle Identification Labels:** Sampling personnel will attach an identification label to each sample bottle. At a minimum, the following information will be recorded on the label, as appropriate:
  - Project name
  - Project number
  - Unique sample identification number and location. [Caltrans Number]-[Six digit sample collection date]-[Location] (*Example: 07-0G5304-081801-Inlet472*). Quality assurance/quality control (QA/QC) samples shall be identified similarly using a unique sample number or designation (*Example: 07-0G5304-081801-DUP1*).
  - Collection date/time (No time applied to QA/QC samples)
  - Analysis constituent
- **Sampling Activity Logs:** A log of sampling events will identify:
  - Sampling date

- Separate times for collected samples and QA/QC samples recorded to the nearest minute
  - Unique sample identification number and location
  - Analysis constituent
  - Names of sampling personnel
  - Weather conditions (including precipitation amount)
  - Field analysis results
  - Other pertinent data
- Chain-of-Custody (COC) forms: All samples to be analyzed by a laboratory will be accompanied by a COC form provided by the laboratory. Only the sample collectors will sign the COC form over to the lab. COC procedures will be strictly adhered to for QA/QC purposes.
  - Storm Water Quality Construction Inspection Checklists: When applicable, the contractor's storm water inspector will document on the checklist that samples for non-visible pollutants were taken during a rain event.

#### **600.5.6 Sample Analysis**

##### ***INSTRUCTIONS:***

- Identify the test method and specifications to be used to monitor the non-visible pollutants included in the "Potential Non-Visible Pollutants and Water Quality Indicator Constituents" table in Section 600.5.4.
  - ❑ Fill in the "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" table provided in this section.
  - ❑ There should be a test method identified for each Water Quality Indicator Constituent listed in the table in Section 600.5.4.
  - ❑ Contact the selected laboratory for the appropriate test method and test specifications to be used for each constituent.
- Identify field test instruments to be used for analyzing samples in the field, if any.

##### ***REQUIRED TEXT:***

Samples will be analyzed for the applicable constituents using the analytical methods identified in the "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants" table in this section.

**EXAMPLE:****Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants**

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
VOCs-Solvents	EPA 601/602	3 x 40 mL	VOA-glass	Store at 4° C, HCl to pH<2	1 µg/L	14 days
SVOCs	EPA 625	1 x 1 L	Glass-amber	Store at 4° C	10 µg/L	7 days
Pesticides/PCBs	EPA 8081A/8082	1 x 1 L	Glass-amber	Store at 4° C	0.1 µg/L	7 days
Herbicides	EPA 8151A	1 x 1 L	Glass-amber	Store at 4° C	Check Lab	7 days
BOD	EPA 405.1	1 x 500 mL	Polypropylene	Store at 4° C	1 mg/L	48 hours
COD	EPA 410.4	1 x 250 mL	Glass-Amber	Store at 4° C, H <sub>2</sub> SO <sub>4</sub> to pH<2	5 mg/L	28 days
DO	SM 4500-O G	1 x 250 mL	Glass-Amber	Store at 4° C	Check Lab	8 hours
pH	EPA 150.1	1 x 100 mL	Polypropylene	None	unitless	Immediate
Alkalinity	SM 2320B	1 x 250 mL	Polypropylene	Store at 4° C	1 mg/L	14 days
Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Na, Th, Va, Zn)	EPA 200.8/1631	1 x 250 mL	Polypropylene	Store at 4° C, HNO <sub>3</sub> to pH<2	0.1 mg/L	6 months
Metals (Chromium VI)	EPA 7196	1 x 500 mL	Polypropylene	Store at 4° C	1 µg/L	24 hours
<b>Notes:</b>						
°C	Degrees Celsius		µg/L	Micrograms per Liter		
BOD	Biochemical Oxygen Demand		mL	Milliliter		
COD	Chemical Oxygen Demand		PCB	Polychlorinated Biphenyl		
DO	Dissolved Oxygen		SVOC	Semi-Volatile Organic Compound		
EPA	Environmental Protection Agency		SM	Standard Method		
HCl	Hydrogen Chloride		TPH	Total Petroleum Hydrocarbons		
H <sub>2</sub> SO <sub>4</sub>	Hydrogen Sulfide		TRPH	Total Recoverable Petroleum Hydrocarbons		
HNO <sub>3</sub>	Nitric Acid		VOA	Volatile Organic Analysis		
L	Liter		VOC	Volatile Organic Compound		
mg/L	Milligrams per Liter					

**REQUIRED TEXT:**

**Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants**

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Notes:						

**REQUIRED TEXT ONLY IF SAMPLES WILL BE ANALYZED IN THE FIELD:**

For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with field instrument manufacturer's specifications.

The following field instruments will be used to analyzed the following constituents:

Field Instrument	Constituent
<u>[Fill in]</u>	<u>[Fill in]</u>
<u>[Fill in, if needed]</u>	<u>[Fill in, if needed]</u>
<u>[Fill in, if needed]</u>	<u>[Fill in, if needed]</u>

- The instruments will be maintained in accordance with manufacturer's instructions.
- The instrument(s) will be calibrated before each sampling and analysis event.
- Maintenance and calibration records will be maintained with the SWPPP.

**600.5. 7 Quality Assurance/Quality Control**

**REQUIRED TEXT:**

For an initial verification of laboratory or field analysis, duplicate samples will be collected at a rate of 10 percent or 1 duplicate per sampling event. The duplicate sample will be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample will be collected at each location immediately after the primary sample has been collected. Duplicates will be collected where contamination is likely, not on the background sample. Duplicate samples will not influence any evaluations or conclusions, however, they will be used as a check on laboratory quality assurance.

**600.5.8 Data Management and Reporting**

**REQUIRED TEXT:**

A copy of all water quality analytical results and QA/QC data will be submitted to the Resident Engineer within 5 days of sampling (for field analyses) and within 30 days (for laboratory analyses).

Electronic results will be submitted on diskette in Microsoft Excel (.xls) format, and will include, at a minimum, the following information from the lab: Sample ID Number, Contract Number, Constituent, Reported Value, Lab Name, Method Reference, Method Number, Method Detection Limit, and Reported Detection Limit.

Lab reports and COCs will be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. All data, including COC forms and Sampling Activity Logs, shall be kept with the SWPPP document, which is to remain at the construction site at all times until a Notice of Construction Completion has been submitted and approved.

Electronic results will be emailed to [Name] of [Company] at [email address] after final sample results are received after each sampling event for inclusion into a statewide database.

### 600.5.9 Data Evaluation

#### **INSTRUCTIONS:**

- The General Permit requires that BMPs be implemented on the construction site to prevent non-visible pollutants from discharging with storm water from the construction site.
- The downgradient water quality sample analytical results will be evaluated to determine if the downgradient sample(s) show significantly elevated concentrations of the tested analyte relative to the concentrations found in the uncontaminated background sample.
- The water quality sample analytical results will be evaluated to determine if the runoff and run-on samples show significantly elevated levels of the tested constituent relative to the levels found in the background sample. The run-on sample analytical results will be used as an aid in evaluating potential offsite influences on water quality results.

#### **REQUIRED TEXT:**

An evaluation of the water quality sample analytical results, including figures with sample locations, will be submitted to the Resident Engineer with the water quality analytical results and the QA/QC data.

Should the downgradient sample show an increased level of the tested analyte relative to the background sample, the BMPs, site conditions, and surrounding influences will be assessed to determine the probable cause for the increase. As determined by the site and data evaluation, appropriate BMPs will be repaired or modified to address increases in non-visual pollutant concentrations. Any revisions to the BMPs will be recorded as an amendment to the SWPPP.

### 600.5.10 Change of Conditions

#### **REQUIRED TEXT:**

---

Whenever SWPPP monitoring, pursuant to Section B of the General Permit, indicates a change in site conditions that might affect the appropriateness of sampling locations or introduce additional non-visible pollutants of concern, testing protocols will be revised accordingly. All such revisions will be recorded as amendments to the SWPPP.

## Pollutant Testing Guidance Table

Pollutant Testing Guidance Table

Category	Construction Site Material	Visually Observable?	Pollutant Indicators <sup>1</sup>	Suggested Analyses	
				Field <sup>2</sup>	Laboratory
Asphalt Products	Hot Asphalt Asphalt Emulsion Liquid Asphalt (tack coat) Cold Mix	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required		
	Crumb Rubber	No	Benzothiazole Aluminum Mercury	None	EPA 825 (SVOC-lic) EPA 200.8 (Metal) EPA 1631 (Mercury)
	Shingles Bottom Ash Steel Slag Foundary Sand Fly Ash	No	Aluminum Calcium Vanadium Zinc TOC	None	EPA 200.8 (Metal) EPA 415.1 (TOC)
	Municipal Solid Waste Incinerator Bottom Ash Asphalt Concrete (Any Type)	Yes - Rainbow Surface or Brown Suspension	Visually Observable - No Testing Required		
Cleaning Products	Acids	No	pH Acidity Anions (acetic acid, phosphoric acid, sulfuric acid, nitric acid, hydrogen chloride)	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2310B (Acidity)
	Bleaches	No	Residual Chlorine	HACH SW-1 Test Kit (Chlorine)	EPA 300.0 (Anion)
	Detergents	Yes - Foam	Visually Observable - No Testing Required		SM 4500-CL G (Res. Chlorine)
	TSP	No	Phosphate	HACH PO-24 Test Kit (Phosphate)	EPA 365.3 (Phosphate)
	Solvents	No	Phenol VOC SVOC	HACH SW-1 Test Kit (Phenol)	EPA 420.1 (Phenol) EPA 601/602 (VOC) EPA 625 (SVOC)
Portland Concrete Cement & Masonry Products	Acid Wash	No	pH	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH)
	Portland Cement (PCC)	Yes - Milky Liquid	Visually Observable - No Testing Required		
	Masonry products	No	pH Alkalinity	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2320 (Alkalinity)
	Methyl Methacrylate (MMA)	No	N, 4-Dimethylbenzenamine Copper Zinc	None	EPA 625 (SVOC-lic) EPA 200.8 (Metal)
	Solids and Mortar	No	Calcium Alkalinity	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 200.8 (Metal) SM 2320 (Alkalinity)
	Concrete Rinse Water	Yes - Milky Liquid	pH	Visually Observable - No Testing Required	EPA 150.1 (pH)
	Non-Pigmented Curing Compounds	No	Acidity Alkalinity pH VOC	HACH SW-1 Test Kit or Rental Meter (pH)	SM 2310B (Acidity) SM 2320 (Alkalinity) EPA 150.1 (pH) EPA 601/602 (VOC)

TABLE WILL BE UPDATED PERIODICALLY AS MORE INFORMATION IS AVAILABLE  
Revision Date: February 19, 2002

Pollutant Testing Guidance Table

Category	Construction Site Material	Visually Observable?	Pollutant Indicators <sup>1</sup>	Suggested Analyses	
				Field <sup>2</sup>	Laboratory
Landscaping Products	Aluminum Sulfate	No	TDS Alkalinity pH	Rental Meter (TDS) HACH SW-1 Test Kit or Rental Meter (pH)	EPA 160.1 (TDS) SM 2320 (Alkalinity) EPA 150.1 (pH)
	Sulfur-Elemental	No	Sulfate	None	EPA 300.0 (Sulfate)
	Fertilizers-Inorganic	No	Ammonia Phosphate Organic Nitrogen Potassium	HACH PO-24 Test Kit (Phosphate) HACH NI-8 Test Kit (Ammonia)	EPA 350.2 (Ammonia) EPA 365.3 (Phosphate) EPA 351.3 (TKN) EPA 200.8 (Metal)
	Fertilizers-Organic	No	TOC COD	None	EPA 415.1 (TOC) EPA 410.4 (COD)
	Natural Earth (Sand, Gravel, and Topsoil)	Yes - Cloudiness and turbidity	Visually Observable - No Testing Required		
	Herbicide	No	Herbicide	None	Check lab for specific herbicide
	Pesticide	No	Pesticide	None	Check lab for specific pesticide
	Lime and Gypsum	No	pH Alkalinity Aluminum Barium Manganese Vanadium	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 150.1 (pH) SM 2320 (Alkalinity) EPA 200.8 (Metal)
	Chlorinated Water	No	Total chlorine	HACH SW-1 Test Kit (Chlorine)	SM 4500-CL G (Res. Chlorine)
	Adhesives	No	COD Phenols SVOC	HACH SW-1 Test Kit (Phenol)	EPA 410.4 (COD) EPA 420.1 (Phenol) EPA 625 (SVOC)
Painting Products	Paint Strippers	No	VOC	None	EPA 601/602 (VOC)
	Resins	No	COD SVOC	None	EPA 410.4 (COD) EPA 625 (SVOC)
	Sealants	No	COD	None	EPA 410.4 (COD)
	Solvents	No	COD VOC SVOC	HACH SW-1 Test Kit (Phenol)	EPA 410.4 (COD) EPA 601/602 (VOC) EPA 625 (SVOC)
	Thinners	No	Phenols VOC COD	HACH SW-1 Test Kit (Phenol)	EPA 420.1 (Phenol) EPA 601/602 (VOC) EPA 410.4 (COD)
Portable Toilet Waste Products	Portable Toilet Waste	Yes <sup>3</sup>	Fecal Coliform	None	SM 9221E (Fecal Coliform)
			BOD	HACH NI-24 Test Kit (Nitrate)	EPA 405.1 (BOD)

TABLE WILL BE UPDATED PERIODICALLY AS MORE INFORMATION IS AVAILABLE  
Revision Date: February 18, 2002

Pollutant Testing Guidance Table

Category	Construction Site Material	Visually Observable?	Pollutant Indicators <sup>1</sup>	Suggested Analyses	
				Field <sup>2</sup>	Laboratory
Soil Amendment/Stabilization Products	Copolymer	No	COD DOC Nitrate Sulfate Nickel		EPA 410.4 (COD) EPA 415.1 (DOC) EPA 300.0 (Nitrate) EPA 300.0 (Sulfate) EPA 200.8 (Metal)
	Straw/Mulch	Yes - Solids	Visually Observable	No Testing Required	
	Lignin Sulfonate	No	Alkalinity TDS	Rental Meter (TDS)	SM 2320 (Alkalinity) EPA 160.1 (TDS)
	Psyllium	No	Water Quality Data is Low - No Testing Required		
	Guar	No	COD Nickel	None	EPA 410.4 (COD) EPA 200.8 (Metal)
	Petroleum Resin	No	COD TOC Iron Manganese Nickel	None	EPA 410.4 (COD) EPA 415.1 (TOC) EPA 200.8 (Metal)
Dust Palliative Products	Gypsum	No	Aluminum Barium Manganese Vanadium	None	EPA 200.8 (Metal)
	Plant Gums	No	BOD	None	EPA 405.1 (BOD)
	Salts (Magnesium Chloride, Calcium Chloride, and Natural Brines)	No	Acidity Alkalinity pH TDS Cations (Sodium, Magnesium, calcium)	Rental Meter (TDS) HACH SW-1 Test Kit or Rental Meter (pH)	SM 23105 (Acidity) SM 2320 (Alkalinity) EPA 150.1 (pH) EPA 160.1 (TDS) EPA 200.7 (Cations)
	Ammoniacal-Copper-Zinc-Arsenate (ACZA) Copper-Chromium-Arsenic (CCA)	No	Arsenic Chromium <sup>46</sup> Copper Zinc	None	EPA 200.8 (Metal) EPA 7196 (Chrom. <sup>46</sup> )
Vehicle	Antifreeze and Other Vehicle Fluids	Yes - Colored Liquid	Visually Observable	No Testing Required	
	Batteries	No	Sulfuric Acid Lead pH	HACH SW-1 Test Kit or Rental Meter (pH)	EPA 300.0 (Sulfate) EPA 200.8 (Metal) EPA 150.1 (pH)
	Fuels, Oils, Lubricants	Yes - Rainbow Surface Sheen and Odor	Visually Observable	No Testing Required	

**Notes:**<sup>1</sup> For each construction material, test for one of the pollutant indicators. **Bolded** pollutant indicates lowest analysis cost.<sup>2</sup> See [www.hach.com](http://www.hach.com) for some of the test kits<sup>3</sup> No testing if visible (i.e. colored liquid, paper product)

## Pollutant Testing Guidance Table

Category	Construction Site Material	Visually Observable?	Pollutant Indicators <sup>1</sup>	Suggested Analyses	
				Field <sup>2</sup>	Laboratory
BOD - Biochemical Oxygen Demand					
COD - Chemical Oxygen Demand					
EPA - Environmental Protection Agency					
HACH - Worldwide company that provides advanced analytical systems and technical support for water quality testing.					
SM - Standard Method					
SVOC - Semi-Volatile Organic Compounds					
tic - tentatively identified compound					
TDS - Total Dissolved Solids					
TNK - Total Kjeldahl Nitrogen					
TOC - Total Organic Carbon					
VOC - Volatile Organic Compounds					



## **APPENDIX E**

Pre-Construction Meeting Agenda – Example



## Pre-Construction Meeting Storm Water Management Compliance Requirements

<b>Contract No.</b>
---------------------

The following is a summary of the required Contractor-responsible items for Storm Water Management compliance. Details of these requirements can be found in section 7-1.01G of the *Standard Specifications* and in section \_\_\_\_\_ of the Project *Special Provisions*.

### Prior to Starting Construction

- **Project Special Provisions Require the Contractor to Submit One of the Following:**

- ☐ Water Pollution Control Program (WPCP) for projects resulting in less than 5 acres (2 hectares) of soil disturbance.
- ☐ Storm Water Pollution Prevention Plan (SWPPP) for projects resulting in 5 acres or more of soil disturbance. The applicable NPDES Permit would then apply.

- **Reference Documents for SWPPP Preparations:**

- ☐ Caltrans *Standard Specifications*.
- ☐ Project *Special Provisions*, section \_\_\_\_\_, Water Pollution Control
- ☐ Caltrans *Storm Water Quality Handbooks – Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual* (November 2000); and the Construction Site Best Management Practices (BMPs) Manual (November 2000)
- ☐ Project Plans
- ☐ **General Construction Permit No. CAS000002. The SWRCB has adopted a Statewide Caltrans Construction Permit, # CAS000003, which covers all Caltrans activities. For construction activities, the General Permit No. CAS000002 is included by reference and still governs.**

- **Scheduling of Work is an Important Element of the SWPPP Process:**

- ☐ The contractor is to schedule major clearing and grading operations to limit the total disturbed soil areas, during the winter season, to no more than \_\_\_\_\_ hectares ( \_\_\_\_\_ acres), unless otherwise approved by the Engineer in writing.
- ☐ Contractor is to schedule construction activities to minimize the time of exposure of erodible soils.
- ☐ Contractor is to phase construction throughout the year to limit the erodible soil areas to no more than 70,000 square meters ( $\approx$  17 acres), unless otherwise approved by the Engineer in writing.

● **Progression of the SWPPP Approval Process:**

- ☐ Contractor submits SWPPP to Resident Engineer (RE) within \_\_\_\_\_ days of contract approval.
- ☐ RE reviews plan and approves, conditionally approves, or returns to contractor within \_\_\_\_\_ days of receipt.
- ☐ Contractor revises plan and resubmits to RE within \_\_\_\_\_ days, and so on until approved.

**During Construction**

● **SWPPP Implementation Requirements:**

- ☐ Contractor retains copy of the approved SWPPP, all related inspection reports, and permits on site at all times.
- ☐ Contractor correctly implements appropriate BMPs as specified in the approved SWPPP and as outlined in the *Handbook*.
- ☐ Throughout the year, the erodible soil areas shall be limited to 70,000 square meters. The RE may approve, on a case by case basis, expansions of this limit.
- ☐ Sediment control (protecting significant erodible slopes), sediment tracking control, wind erosion control, non-storm water management, and waste management and disposal BMPs shall be implemented year-round and throughout the duration of the project.
- ☐ Soil stabilization and sediment control BMPs shall be implemented twenty (20) days prior to and throughout the duration of the winter season.
- ☐ On projects commencing within twenty (20) days of, or during the winter season, soil stabilization and sediment control BMPs shall be implemented upon the start of applicable construction activities, except as noted in the *Special Provisions*.

● **Minimum Winter Season Control Measures:**

- ☐ Each active, soil-disturbed area of the project site, including stockpiled materials at storage or staging areas, shall be limited to \_\_\_\_\_ hectares as specified in the *Special Provisions*. The Engineer may approve, on a case by case basis, expansions of the active, soil-disturbed area limit. [Certain areas such as Tahoe Hydrologic unit may prohibit DSAs during the rainy season.]
- ☐ Active, soil-disturbed areas of the project site shall be fully protected using both soil stabilization and sediment control BMPs at the end of each day, unless fair weather is predicted. The contractor shall monitor the weather conditions on a daily basis utilizing forecasts by the National Weather Service or equivalent national forecast service if approved by the Engineer.

- ☐ Nonactive, soil-disturbed areas of the project site shall be protected using soil stabilization and sediment control BMPs within ten (10) days of the discontinuance of soil disturbing activities, or prior to the onset of precipitation, whichever is first to occur.

● **Inspection Requirements:**

- ☐ It is the contractor's responsibility to inspect the construction site for the proper implementation and maintenance of BMPs. Refer to section 4.2 of the *Handbook*.
- ☐ The contractor shall identify corrective actions and time frames to address any failed, damaged, or ineffective BMPs.
- ☐ Caltrans field personnel and/or other regulatory inspectors may inspect the site in order to verify adequate implementation and maintenance of BMPs.
- ☐ Contractor's site inspections are to be made by trained personnel.
- ☐ Results of each contractor inspection are documented using the Construction Site Inspection Checklist provided in Appendix B, Attachment I of the *Handbook*.
- ☐ Contractor shall retain copies of all inspection records on-site and submit copies of the reports to the RE.

● **Inspection Frequency:**

- ☐ Inspections of sediment control (to protect significant erodible slopes), non-storm water management, and waste management and disposal BMPs shall take place throughout the duration of the project on a minimum of a biweekly basis. Refer to the *Special Provisions* and section 4.2.1 of the *Handbook*.
- ☐ When implementation is required, inspections of erosion and sediment control BMPs are required before and after each storm event, and at 24-hour intervals during extended storm events. During the winter season inspections are required on a minimum biweekly basis. Refer to section 4.2.2 of the *Handbook*.

● **Regulatory Oversight:**

- ☐ Under the terms of the Permit, staff from the RWQCB, SWRCB and/or USEPA have the authority to review the SWPPP and to inspect the project site.
- ☐ These agencies can issue significant penalties if pollution control measures and/or SWPPP documents are not in compliance with the applicable Permit.
- ☐ As specified by the *Special Provisions* the contractor is responsible for all fines, penalties, or damages imposed by law as a result of the contractor's failure to comply with the requirements of the Permit.

● **BMP Maintenance:**

- ☐ Maintenance of soil stabilization, sediment control, non-storm water management, and waste management and disposal BMPs is a very critical aspect of pollution prevention.

- ☐ If the contractor determines that an implemented BMP is in need of maintenance or other corrective action, the situation shall be corrected immediately.
- ☐ If the RE identifies a deficiency in the implementation of a BMP, the contractor will receive written notification requesting that the deficiency be corrected.
- ☐ Trained personnel shall perform maintenance and repair of BMPs.

● **Reporting:**

- ☐ By June 15 of each year, the contractor shall certify that the construction operations are in compliance with the requirements of Permit and the SWPPP. Refer to section 4.4 of the *Handbook*.
- ☐ If inspections indicate any non-compliance, the contractor shall notify the RE in writing (see Attachment K of the *Handbook*), and the RE will notify the RWQCB. Refer to section 500.10.3, Non-compliance, of the *Handbook*.

● **Amendments:**

- ☐ The contractor shall amend the SWPPP, graphically and in writing, whenever there is a change in construction or operations that may cause the discharge of significant quantities of pollutants to surface waters, groundwaters, or municipal storm drain systems.
- ☐ The contractor shall amend the SWPPP when considered necessary by the RE.
- ☐ The SWPPP shall be amended if it is in violation of any condition of the Permit or the SWPPP has not achieved the general objective of reducing pollutants in storm water discharges.
- ☐ Amendments shall be logged in the SWPPP and attached to the on-site document.
- ☐ All SWPPP amendments shall be submitted to the RE for review and approval.
- ☐ During the preparation and review of SWPPP amendments, construction may continue with temporary modifications to BMPs, subject to approval by the RE.

● **Failure to Comply:**

*Special Provisions* (section 10) provide for the following:

- ☐ The contractor is responsible for costs/liabilities for failure to comply.
- ☐ Money may be retained by the State (up to 25% of total monthly payment).

*Standard Specifications* provide for the following:

- ☐ RE may suspend work (section 8-1.05).
- ☐ State may take over work and charge the original contractor (section 8-1.08).
- ☐ RE may initiate termination of the contract (section 8-1.11).



## **APPENDIX F**

Storm Water Contacts at the Regional Water Quality Control Boards  
Caltrans Storm Water Coordinators

## Storm Water Contacts at the Regional Water Quality Control Boards

## **Storm Water Contacts at the Regional Water Quality Control Boards**

### **REGION 1: NORTH COAST**

Lee A. Michlin, Executive Officer  
5550 Skylane Boulevard, Suite A  
Santa Rosa, CA 95403  
John Short (shorj@rb1.swrcb.ca.gov)  
(707) 576-2065 FAX: (707) 523-0135

### **REGION 2: SAN FRANCISCO BAY**

Loretta Kahn Barsamian, Executive Officer  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

#### **Construction**

David Brockbank (Stu20@rb2.swrcb.ca.gov)  
(510) 622-2319 FAX: (510) 622-2460

#### **Industrial**

Rico Duazo (RAD@rb2.swrcb.ca.gov)  
(510) 622-2340 FAX: (510) 622-2460

### **REGION 3: CENTRAL COAST**

Roger W. Briggs, Executive Officer  
81 Higuera Street, Suite 200  
San Luis Obispo, CA 93401-5427  
Jennifer Bitting (jbitting@rb3.swrcb.ca.gov)  
(805) 549-3147 FAX: (805) 543-0397

### **REGION 4: LOS ANGELES**

Dennis Dickerson, Executive Officer  
320 W. 4th Street, Suite 200  
Los Angeles, CA 90013

#### **Inland Los Angeles**

Yi Lu (ylu@rb4.swrcb.ca.gov)  
(213) 620-2237 FAX: (213) 576-5777

#### **Ventura County**

Ejigu Solomon (esolomon@rb4.swrcb.ca.gov)  
(213) 620-2120 FAX: (213) 576-5777

Coastal

Xavier Swamikannu (xswami@rb4.swrcb.ca.gov)  
(213) 620-2094 FAX: (213) 576-5777

REGION 5F: CENTRAL VALLEY, FRESNO

Loren J. Harlow, Assistant Executive Officer  
3614 East Ashlan Avenue  
Fresno, CA 93726  
Brian Erlandsen (ErlandsenB@rb5f.swrcb.ca.gov)  
(559) 445-6071 FAX: (559) 445-5910

REGION 5R: CENTRAL VALLEY, REDDING

James C. Pedri, Supervising Engineer  
415 Knollcrest Drive  
Redding, CA 96002  
Carole Crowe (crowec@rb5r.swrcb.ca.gov)  
(530) 224-4849 FAX: (530) 224-4857

REGION 5S: CENTRAL VALLEY REGION, SACRAMENTO

Gary M. Carlton, Executive Officer  
3443 Routier Road, Suite A  
Sacramento, CA 95827-3098  
Jacque Kelley (kelleyj@rb5s.swrcb.ca.gov)  
(916) 255-3064 FAX: (916) 255-3015

REGION 6SLT: LAHONTAN, SOUTH LAKE TAHOE

Harold J. Singer, Executive Officer  
2501 Lake Tahoe Boulevard  
South Lake Tahoe, CA 96150  
Bud Amorfini (bamorfina@rb6s.swrcb.ca.gov)  
(530) 542-5437 FAX: (530) 544-2271

REGION 6V: LAHONTAN, VICTORVILLE

Hisam Baqai, Supervising Engineer  
15428 Civic Drive, Suite 100  
Victorville, CA 92392  
Shannon Smith (ssmith@rb6v.swrcb.ca.gov)  
(760) 241-7374 FAX: (760) 241-7308

REGION 7: COLORADO RIVER BASIN

Philip Gruenberg, Executive Officer  
73-720 Fred Waring Drive, Suite 100  
Palm Desert, CA 92260  
Rosalyn Fleming (flemr@rb7.swrcb.ca.gov)  
(760) 346-7364 FAX: (760) 341-6820

REGION 8: SANTA ANA REGION

Gerard J. Thibeault, Executive Officer  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

Riverside County

Michael Roth (mroth@rb8.swrcb.ca.gov)  
(909) 320-2027 FAX: (909) 321-4580

Orange County

Michelle Beckwith (mbeckwit@rb8.swrcb.ca.gov)  
(909) 782-4433 FAX: (909) 321-4580

San Bernardino County

Muhammad Bashir (mbashir@rb8.swrcb.ca.gov)

REGION 9: SAN DIEGO

John H. Robertus, Executive Officer  
9174 Sky Park Court, Suite 100  
San Diego, CA. 92123

Construction

Jane Ledford (ledfj@rb9.swrcb.ca.gov)  
(858) 467-3272 FAX: (858) 571-6972

Industrial

Gloria Fulton (fultg@rb9.swrcb.ca.gov)  
(858) 467-2959 FAX: (858) 571-6972

## Caltrans Storm Water Coordinators

## Caltrans Storm Water Coordinators

<b>District</b>	<b>NPDES Storm Water Coordinator</b>	<b>Design Storm Water Coordinator</b>	<b>Maintenance Storm Water Coordinator</b>	<b>Construction Storm Water Coordinator</b>
1	<b>Jeff Pizzi</b> Jeff_Pizzi@dot.ca.gov 1657 Riverside Drive Redding, CA 96001 (530) 229-0524	<b>Wesley Faubel</b> Wesley_Faubel@dot.ca.gov 703 B Street Marysville, CA 95901 (530) 741-4270	<b>Bob Fallis</b> Bob_Fallis@dot.ca.gov 1835 Sixth Street Eureka, CA 95501 (707) 445-6625 Fax (707) 441-2025	<b>Kirk Carrington</b> Kirk_Carrington@dot.ca.gov 10960 West River Street Suite 101 A Truckee, CA 96161 (530) 582-9129 Fax (530) 582-9106
2	<b>Jeff Pizzi</b> Jeff_Pizzi@dot.ca.gov 1657 Riverside Drive Redding, CA 96001 (530) 229-0524	<b>Wesley Faube</b> Wesley_Faubel@dot.ca.gov 703 B Street Marysville, CA 95901 (530) 741-4270	<b>Mark Harvey</b> Mark_Harvey@dot.ca.gov 1657 Riverside Drive, MS-5B Redding, CA 96003-6073 (530) 225-2099 Fax (530) 225-3390	<b>Ted Schultz</b> Ted_Schultz@dot.ca.gov 1657 Riverside Drive P O Box 496073 Redding, CA 96049-6073 (530) 225-4640 Fax (530) 225-2078 Cell (530) 604-4840
3	<b>Jeff Pizzi</b> Jeff_Pizzi@dot.ca.gov 1657 Riverside Drive Redding, CA 96001 (530) 229-0524	<b>Wesley Faubel</b> Wesley_Faubel@dot.ca.gov 703 B Street Marysville, CA 95901 (530) 741-4270	<b>Dick Dier</b> Dick_Dier@dot.ca.gov 703 B Street Marysville, CA 95901 (530) 741-5364 Fax (530) 741-4072  <b>John Garbutt</b> John_Garbutt@dot.ca.gov 703 B Street Marysville, CA 95901 (530) 741-4264 Fax (530) 741-4072	<b>Kirk Carrington</b> Kirk_Carrington@dot.ca.gov 10960 West River Street Suite 101 A Truckee, CA 96161 (530) 582-9129 Fax (530) 582-9106

<b>District</b>	<b>NPDES Storm Water Coordinator</b>	<b>Design Storm Water Coordinator</b>	<b>Maintenance Storm Water Coordinator</b>	<b>Construction Storm Water Coordinator</b>
4	<b>Mike Flake</b> Mike_Flake@dot.ca.gov 111 Grand Ave Oakland, CA 94623 (510) 286-5664	<b>Mike Flake</b> Mike_Flake@dot.ca.gov 111 Grand Ave-MS3D Oakland, CA 94623 (510) 286-5664	<b>Larry Hammond</b> Lawrence_Hammond@dot.ca.gov 111 Grand Ave Oakland, CA 94623 (510) 286-5215 Fax (510) 286-5794	<b>Frank Gorham</b> Frank_Gorham@dot.ca.gov 1910 Olympic Blvd., #160 Walnut Creek, CA 94596 (925) 942-6012 Fax (510) 286-5171 Cell (510) 385-6758
5	<b>Marc Boswell</b> Marc_Boswell@dot.ca.gov 2015 E. Shields Ave. Fresno, CA 93726 (559) 243-3565 Fax (209) 276-5963	<b>Jennifer O'Neal</b> Jennifer_O'Neal@dot.ca.gov 50 Higuera Street San Luis Obispo, CA 93401 (805) 549-3836	<b>Jon Wood</b> Jon_Wood@dot.ca.gov 50 Higuera Street San Luis Obispo, CA 93401 (805) 549-3836 Fax (805) 549-3871	<b>Pete Riegelhuth</b> Pete_Riegelhuth@dot.ca.gov 4485 Vachelle Lane San Luis Obispo, CA 93401 (805) 549-3661 Fax (805) 549-3636 Cell (805) 441-6935
6	<b>Larsen Boyer</b> Larsen_Boyer@dot.ca.gov 2015 E Shields Ave. Fresno, CA 93726 (559) 243-8226	<b>Marc Boswell (not confirmed)</b> 2015 E. Shields Ave Fresno, CA 93726 (559) 243-3565	<b>John Haen</b> John_Haen@dot.ca.gov 1352 West Olive Avenue Fresno, CA 93778 (559) 488-4071 Fax (559) 488-4130	<b>Raafat Shehata</b> Raafat_Shehata@dot.ca.gov Central Region Construction 850 L Street Fresno, CA 93721 (559) 488-4284  <b>Sheri West</b> Sheri_West@dot.ca.gov 1824 Norris Road Bakersfield, CA 93380 (661)395-2795 Fax (661) 395-3854 Cell (661) 332-0963

<b>District</b>	<b>NPDES Storm Water Coordinator</b>	<b>Design Storm Water Coordinator</b>	<b>Maintenance Storm Water Coordinator</b>	<b>Construction Storm Water Coordinator</b>
7	Paul Thakur <b>Jai_Paul_Thakur@dot.ca.gov</b> 120 S. Spring Street Los Angeles, CA 90012 (213) 897-7546	Shirley Pak <b>Shirley_Pak@dot.ca.gov</b> 120 South Spring Street Col3.-9A Los Angeles, CA 90012 (213) 897-0428	Martin Sanchez <b>Martin_A_Sanchez@dot.ca.gov</b> 801 Grand Ave Los Angeles, CA 90014 (213) 620-6318 Fax (213) 620-2117	James Burt <b>James_Burt@dot.ca.gov</b> 120 South Street Room 233/Construction Division Los Angeles, CA 90012-3602 (213) 897-1960 Fax (213) 897-0073 Cell (213) 798-5981
8	Paul Lambert <b>Paul_Lambert@dot.ca.gov</b> 464 West Fourth Street 6th Floor MS 1164 San Bernardino, CA 92401 (909) 383-4948	Paul Lambert <b>Paul_Lambert@dot.ca.gov</b> 464 West Fourth St, 6th Floor San Bernardino, CA 92401 (909) 383-4948	Jim Dodd <b>Jim_Dodd@dot.ca.gov</b> 464 West Fourth St, 6th Floor San Bernardino, CA 92401 (909) 383-4703 Fax (909) 383-4389	Walt Griffith <b>Walt_Griffith@dot.ca.gov</b> 1110-A Research Dr Redlands, CA 92374 (909) 232-6496 Fax (909) 799-1936 Cell (909) 830-6953
9	Carolyn Yee <b>Carolyn_Yee@dot.ca.gov</b> 500 South Main Street Bishop, CA 93514 (760) 872-1492	Chris Dionisio Christopher_Dionisio@dot.ca.gov 500 South Main Street Bishop, CA 93514 (760) 872-5212	Randy Wright <b>Randy_Wright@dot.ca.gov</b> 500 South Main Street Bishop, CA 93514 (760) 872-0633 Fax (872) 0633	Walt Griffith <b>Walt_Griffith@dot.ca.gov</b> 1110-A Research Dr Redlands, CA 92374 (909) 232-6496 Fax (909) 799-1936 Cell (909) 830-6953
10	Marc Boswell <b>Marc_Boswell@dot.ca.gov</b> 2015 E. Shields Ave. Fresno, CA 93726 (559) 243-3565 Fax (209) 276-5963	(Not assigned?)	Logan Houston <b>Logan_Houston@dot.ca.gov</b> 908 North Emerald Ave. Modesto, CA 95351 (209) 576-6315 Fax (209) 576-6102	Richard Epler <b>Richard_Epler@dot.ca.gov</b> P O Box 2058 Stockton, CA 95203 (209) 786-2932 Fax (209) 948-7215 Cell (209) 483-5565 Pager (209) 234-8557

<b>District</b>	<b>NPDES Storm Water Coordinator</b>	<b>Design Storm Water Coordinator</b>	<b>Maintenance Storm Water Coordinator</b>	<b>Construction Storm Water Coordinator</b>
11	<b>Cory Binns</b> Cory_Binns@dot.ca.gov 2829 Juan Street San Diego, CA 92110-2799 (619) 688-3626	<b>David Stebbins</b> David_Stebbins@dot.ca.gov 4120 Taylor Street, MS-68 San Diego, CA 92110 (619) 688-6676	<b>Lanny Chronert</b> Lanny_Chronert@dot.ca.gov 4120 Taylor Street, MS-68 San Diego, CA 92110 (619) 688-3334	<b>Michael Kolbenschlag</b> Michael_L_Kolbenschlag@dot.ca.gov 7177 Opportunity Road San Diego, CA 92111 (858) 467-4080 Fax-(858) 467-4082 Cell-(858) 688-1518
12	<b>Grace-Garrett</b> Grace_Pina-Garrett@dot.ca.gov 3347 Michelson Drive, Suite 100 Irvine, CA 92612-0661 (949) 724-2189	<b>Grace-Garrett</b> Grace_Pina-Garrett@dot.ca.gov 3347 Michelson Drive, Suite 100 Irvine, CA 92612-0661 (949) 724-2189	<b>Carol Lonebear</b> Carol_Lonebear@dot.ca.gov 3337 Michelson Drive, Suite 380 Irvine, CA 92612-8894 (949) 440-4466 (949) 724-2809	<b>Mark Doroudian</b> Mark_Doroudian@dot.ca.gov 3337 Michelson Drive, Suite CN380 Irvine, CA 92612-8894 (949) 724-2834 Fax-(949) 724-2141 Cell (949) 735-5708



## **APPENDIX G**

Aerially Deposited Lead Variances for Districts 4, 6, 7, 8, 10, 11, and 12



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-01**

**Mr. Harry Yahata, District Director  
State of California  
Department of Transportation, District 4  
(Caltrans)  
111 West Grand Avenue  
P.O. Box 23660  
Oakland, California 94623-0660**

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

**Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 04.**

*Frederick S. Moss*

**Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control**

**Date: 9/22/00**



## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Harry Yahata, District Director  
State of California  
Department of Transportation, District 4 (Caltrans)  
111 West Grand Avenue  
P.O. Box 23660  
Oakland, California 94623-0660

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

5. **APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

6. **DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

7. **FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects throughout the State. In the

more urbanized highway corridors this soil is contaminated with lead, primarily due to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are only waived provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead

concentrations to 350 ppm. That section may be amended and/or expire in the future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;

2. a list of the Caltrans projects that the corridor encompasses;

3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.

3. Carry out the following actions when it identifies additional projects:

(A) Notify the public via a display advertisement in a newspaper of general circulation in that area.

(B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



*California Environmental Protection Agency  
Department of Toxic Substances Control*

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-02**

Mr Bart Bohn, District Director  
State of California  
Department of Transportation, District 6  
(Caltrans)  
1352 W. Olive Avenue  
Fresno, California 93728

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 06.

*Frederick S. Moss*

Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control

Date: 9/22/00

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr Bart Bohn, District Director  
State of California  
Department of Transportation, District 6 (Caltrans)  
1352 W. Olive Avenue  
Fresno, California 93728

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

5. **APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

6. **DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

7. **FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects throughout the State. In the more urbanized highway corridors this soil is contaminated with lead, primarily due

to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are only waived provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the

future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed

area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;
2. a list of the Caltrans projects that the corridor encompasses;

3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.

3. Carry out the following actions when it identifies additional projects:

(A) Notify the public via a display advertisement in a newspaper of general circulation in that area.

(B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-03**

Mr. Robert Sassaman, District Director  
State of California  
Department of Transportation, District 7  
(Caltrans)  
120 South Spring Street  
Los Angeles, California 90012

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 07.

Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control

Date: 9/22/00

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Robert Sassaman, District Director  
State of California  
Department of Transportation, District 7 (Caltrans)  
120 South Spring Street  
Los Angeles, California 90012

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

### **5. APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

### **6. DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

### **7. FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects throughout the State. In the more urbanized highway corridors this soil is contaminated with lead, primarily due

to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are only waived provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the

future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall be used only as fill material under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed

area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;
2. a list of the Caltrans projects that the corridor encompasses;

3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.
3. Carry out the following actions when it identifies additional projects:
  - (A) Notify the public via a display advertisement in a newspaper of general circulation in that area.
  - (B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-04**

Mr. Stan Lisiewicz, District Director  
State of California  
Department of Transportation, District 8  
(Caltrans)  
464 West 4th Street  
San Bernardino, California 92402

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 08.

*Frederick S. Moss*

Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control

Date: 9/22/00

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Stan Lisiewicz, District Director  
State of California  
Department of Transportation, District 8 (Caltrans)  
464 West 4th Street  
San Bernardino, California 92402

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

### **5. APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

### **6. DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

### **7. FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes

to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are waived only provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496 mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the

future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall only be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed

area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;
2. a list of the Caltrans projects that the corridor encompasses;

3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
  4. duration of corridor construction;
  5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
  6. name and phone number (please include area code) of project resident engineer and project manager;
  7. location where Caltrans and contractor health and safety records are kept;
  8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
  9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
  10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
  11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.
- s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.
- t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.
- u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.

3. Carry out the following actions when it identifies additional projects:

(A) Notify the public via a display advertisement in a newspaper of general circulation in that area.

(B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-05**

Mr. Mark Leja, District Director  
State of California  
Department of Transportation, District 10  
(Caltrans)  
1976 E. Charter Way  
P.O. Box 2048  
Stockton, California 95201

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 10.

*Frederick S. Moss*

Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control

Date: 9/22/00

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Mark Leja, District Director  
State of California  
Department of Transportation, District 10 (Caltrans)  
1976 E. Charter Way  
P.O. Box 2048  
Stockton, California 95201

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

### **5. APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

### **6. DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

### **7. FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects throughout the State. In the more urbanized highway corridors this soil is contaminated with lead, primarily due to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are waived only provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with

at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496 mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall only be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;

2. a list of the Caltrans projects that the corridor encompasses;
3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance

pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.

2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.

3. Carry out the following actions when it identifies additional projects:

- (A) Notify the public via a display advertisement in a newspaper of general circulation in that area.

- (B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

- 1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

- 2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substance Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

**Variance No. 00-H-VAR-06**

**Mr. Gary Gallegos, District Director  
State of California  
Department of Transportation, District 11  
(Caltrans)  
2829 Juan Street  
San Diego, California 92110**

**Effective Date: September 22, 2000**

**Expiration Date: September 22, 2005**

**Modification History:**

**Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 11.**

*Frederick S. Moss*

**Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control**

**Date: 9/22/00**

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Gary Gallegos, District Director  
State of California  
Department of Transportation, District 11 (Caltrans)  
2829 Juan Street  
San Diego, California 92110

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

### **5. APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

### **6. DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

### **7. FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes of soil associated with highway construction projects throughout the State. In the more urbanized highway corridors this soil is contaminated with lead, primarily due

to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are waived only provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496 mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the

future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall only be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed

area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;
2. a list of the Caltrans projects that the corridor encompasses;

3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.
2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.
3. Carry out the following actions when it identifies additional projects:
  - (A) Notify the public via a display advertisement in a newspaper of general circulation in that area.
  - (B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



**California Environmental Protection Agency  
Department of Toxic Substances Control**

**VARIANCE**

**Applicant Names:**

Variance No. 00-H-VAR-07

Mr. Ken Nelson, Acting District Director  
State of California  
Department of Transportation, District 12  
(Caltrans)  
3347 Michelson Drive  
Irvine, California 92612

Effective Date: September 22, 2000

Expiration Date: September 22, 2005

Modification History:

Pursuant to Section 25143 of the California Health and Safety Code, the Department of Toxic Substances Control hereby issues the attached Variance consisting of 8 pages to Department of Transportation District 12.

A handwritten signature in cursive script, reading "Frederick S. Moss".

Frederick S. Moss  
Chief, Permitting Division  
Department of Toxic Substances  
Control

Date: 9/22/00

## **VARIANCE**

### **1. INTRODUCTION.**

1.1 Pursuant to Section 25143, Chapter 6.5, Division 20 of the Health and Safety Code (HSC), the California Department of Toxic Substances Control (DTSC) grants a variance to the applicant below for waste considered hazardous solely because of its contaminant concentrations and as further specified herein.

1.2 DTSC hereby grants a variance only from the requirements specified herein and only in accordance with all terms and conditions specified herein.

### **2. IDENTIFYING INFORMATION.**

#### **APPLICANT/OWNER/OPERATOR**

Mr. Ken Nelson, Acting District Director  
State of California  
Department of Transportation, District 12 (Caltrans)  
3347 Michelson Drive  
Irvine, California 92612

### **3. TYPE OF VARIANCE.**

Generation, Manifest, Transportation, Storage and Disposal

### **4. ISSUANCE AND EXPIRATION DATES.**

DATE ISSUED: September 22, 2000 EXPIRATION DATE: September 22, 2005.

### **5. APPLICABLE STATUTES AND REGULATIONS.** The hazardous waste that is the subject of this variance is fully regulated under HSC, Section 25100, et seq. and Title 22 of the California Code of Regulations (CCR) Division 4.5 except as specifically identified in Section 8 of this variance.

### **6. DEFINITION.** For the purposes of this variance, waste that meets the criteria in paragraphs a) and b) of section 9 below, shall be referred to as "lead-contaminated soil(s)".

### **7. FINDINGS/DETERMINATIONS.** DTSC has determined that the variance applicant meets the requirements set forth in HSC Section 25143 for a variance from specific regulatory requirements as outlined in Section 8 of this variance. The specific determinations and findings made by DTSC are as follows:

a) Caltrans intends to excavate, stockpile, transport, bury and cover large volumes

of soil associated with highway construction projects throughout the State. In the more urbanized highway corridors this soil is contaminated with lead, primarily due to historic emissions from automobile exhausts. In situ testing has shown the uppermost two feet of soil have been found to contain concentrations of lead in excess of regulatory thresholds. However, DTSC has prepared a risk assessment that shows that soil contaminated with low concentrations of lead can be managed in a way that presents no significant risk to human health and the environment.

b) The lead-contaminated soil will be placed only in Caltrans rights of way. Based on concentration levels, the wastes will be covered with a minimum thickness of one (1) foot of non-hazardous soil or asphalt cover and will always be five (5) feet above the highest groundwater elevation. Caltrans will assure that proper health and safety procedures will be followed for workers. This includes any persons engaged in maintenance work in areas where the waste has been buried and covered.

c) DTSC finds and requires that the lead contaminated soil excavated, stockpiled, transported, buried and covered is a non-RCRA hazardous waste, and that the hazardous waste management activity is insignificant as a potential hazard to human health and safety and the environment, when managed in accordance with the conditions, limitations and other requirements specified in this variance.

8. PROVISIONS SUBJECT TO VARIANCE.

DTSC, subject to all terms and conditions herein, waives the hazardous waste management requirements of Title 22, CCR, sections 66264.250 through 66264.259, 22 CCR 66268.1 through 66268.9, 22 CCR 66262.10, 22 CCR 66262.12, 22 CCR 66262.20, 22 CCR 66262.30 through 66262.34, 22 CCR 66262.40 through 66262.42, 22 CCR 66263.10 through 66263.18 and 22 CCR 66263.20 through 66263.23 for the generation, transportation, manifesting, storage and land disposal of hazardous waste. These management requirements are waived only provided all other requirements of this variance are complied with at Caltrans construction projects in the Caltrans District specified in section 2 above.

9. SPECIFICATIONS OF THE CONDITIONS, LIMITATIONS, OR OTHER REQUIREMENTS. The owner/operator shall be subject to the following conditions:

a) Caltrans shall manage all soil contaminated with lead at concentrations such that it is considered a hazardous waste pursuant to HSC 25117 and 22 CCR, Div 4.5, Chapter 11, unless the contaminant concentrations and management practices meet the following conditions:

1. Soil containing 500 ug/l extractible lead or less (based on a modified waste extraction test using deionized water as the extractant) and 350 ppm or less total lead may be used as fill provided that the lead-contaminated soil is placed a minimum of five (5) feet above the maximum water table elevation and covered with at least one (1) foot of nonhazardous soil. The limit on total lead within shall be the

following: Total parts per million (ppm) lead shall be at or below the statutory limits in effect when the soil is used as fill or the risk based limit of 1496 mg/kg, whichever is less. On the effective date of this variance, HSC section 25157.8 limits total lead concentrations to 350 ppm. That section may be amended and/or expire in the future. Additionally, other parts of relevant statutes may be added or amended in the future to include lead limits applicable to this variance.

2. Soil containing more than 500 ug/l and less than 50 mg/l extractible lead (based on a modified waste extraction test using deionized water as the extractant) and 350 or less ppm total lead may be used as fill provided that the lead-contaminated soils are placed a minimum of five (5) feet above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by Caltrans. Caltrans shall comply with the lead limits discussed in paragraph a) 1 above.

3. Contaminated soil with a pH < 5.0 shall only be used as fill material only under the paved portion of the roadway.

b) Caltrans will implement appropriate health and safety procedures to protect its employees and the public, and to prevent or minimize exposure to potentially hazardous substances. A project-specific health and safety plan must be prepared and implemented. The monitoring and exposure standards shall be based on Construction Standards in Title 22, CCR section 1532.1.

c) All lead-contaminated soil that cannot be buried and covered within the same Caltrans corridor from where it originated shall be managed as a hazardous waste.

d) Lead-contaminated soil will not be moved outside the designated corridor boundaries (see paragraph q) below).

e) Lead-contaminated soil shall not be buried in areas where it will be in contact with groundwater or surface water.

f) Lead-contaminated soil shall be buried and covered only in locations that are protected from erosion resulting from storm water run-on and run-off.

g) The lead-contaminated soil shall be buried and covered in a manner that will prevent accidental or deliberate breach of the asphalt, concrete, and/or cover soil.

h) The presence of lead-contaminated soil will be incorporated into the projects' as-built drawings. The as-built drawings shall be annotated with the location, representative analytical data, and volume of lead-contaminated soil. The as-built drawings shall also state the depth of the cover. These as-built drawings shall be retained by Caltrans until its rights-of-way or property ownership are relinquished.

i) Caltrans shall ensure that no other hazardous wastes, other than the lead-contaminated

soil, are placed in the burial areas.

j) Lead-contaminated soil shall not be buried within ten (10) feet of culverts or locations subject to frequent worker exposure.

k) Excavated lead-contaminated soil not placed into the designated area (fill area, roadbed area) by the end of the working day shall be stockpiled and covered with sheets of polyethylene or at least one foot of non-hazardous soil. The lead contaminated soil, while stockpiled or under transport, shall be protected from contacting surface water and being dislodged or transported by wind or storm water. The stockpile covers shall be inspected at least once a week and within 24 hours after rainstorms.

l) Caltrans shall ensure that all stockpiling of lead contaminated soil remains within the specified corridor. Stockpiling of lead-contaminated soil outside the area of contamination is in direct violation of land disposal restrictions and is prohibited.

m) Caltrans shall conduct confirmatory sampling, if appropriate, of any stockpile area after removal of the lead- contaminated soil to ensure that contamination has not been left behind or has not migrated from the stockpiled material to the surrounding soils. Caltrans shall ensure that test results are kept with Caltrans project records located at the District office or a subsequent permanent location and are available to DTSC upon request.

n) Caltrans shall stockpile lead-contaminated soil only on high ground (i.e. no sump areas or low points) which will not be affected by surface water run-on or run-off.

o) Caltrans shall not stockpile soil in an environmentally sensitive area.

p) Caltrans shall ensure that run-off which has come into contact with stockpiled lead-contaminated soil will not flow to storm drains, inlets, or waters of the state.

q) Caltrans may move lead-contaminated soil from one Caltrans project to another Caltrans project so long as the lead-contaminated soil remains within the same designated Caltrans corridor. Caltrans shall record this movement of lead- contaminated soil by using a bill of lading. The bill of lading must contain: 1) US DOT description including shipping name, hazard class and ID number; 2) handling codes; 3) quantity of material; 4) volume of material; and 5) any specific handling instructions. The bill of lading shall be referenced in and kept on file with the project's as-built drawings. Lead-contaminated soil must be kept covered during transportation.

r) For each specific corridor where this variance is to be implemented, all of the following information will be submitted in writing to DTSC at least five (5) days before construction of any project begins:

1. a plan drawing designating the boundaries of the corridor where lead-contaminated soils will be excavated, stockpiled, buried and covered;

2. a list of the Caltrans projects that the corridor encompasses;
3. a list of Caltrans contractors that will be conducting any phase of work on any project affected by this variance;
4. duration of corridor construction;
5. location where sampling and analytical data used to make lead concentration level determinations are kept (e.g. a particular Caltrans project file);
6. name and phone number (please include area code) of project resident engineer and project manager;
7. location where Caltrans and contractor health and safety records are kept;
8. location of project special provisions (including page or section number) for soil excavation, transportation, stockpile, burial and placement of cover material;
9. location of project drawings (including drawing page number) for soil excavation, burial and placement of cover in plan and cross section (For example, "The project plans are located at the resident engineer's office located at 5th and Main Streets, City of Fresno,. See pages xxxxx of contract xxxx");
10. If a Caltrans project within the corridor is added, changed or deleted, Caltrans must update the information provided to DTSC five (5) days before construction begins; and
11. The type of environmental document for each project, date of adoption, document title, Clearing House number and where the document is available for review. A copy of the Notice of Exemption for any project shall be submitted to the DTSC Headquarters Project Manager within five (5) days of signing.

s) Changes in location of lead-contaminated soil placement, quantities or protection measures (field changes) will be noted in the resident engineer's project log within five (5) days of the field change.

t) Caltrans shall ensure that field changes are in compliance with the requirements of this variance.

u) If areas subject to the terms of this variance are sold, relinquished or abandoned (including roadways), all future property owners shall be notified in writing in advance by Caltrans of the requirements of this variance, and Caltrans shall provide the owner with a copy of the variance. A copy of such a notice shall be sent to and contain the corridor location and project. Caltrans shall also disclose to the new owner the location of areas where lead contaminated soil has been buried. Future property owners will be subject to the same requirements as Caltrans retains the right to modify or revoke this variance

pursuant to HSC 25143 upon a change of ownership or at any other time.

v) For the purposes of informing the public about instances where the variance is implemented, Caltrans shall:

1. Maintain current fact sheets at all Caltrans resident engineer offices and the Caltrans District office. Caltrans shall make the fact sheets available to anyone expressing an interest in variance-related work.

2. Maintain a binder(s) containing copies of all reports submitted to DTSC at the District office. Caltrans shall ensure that the binders are readily accessible to the public.

3. Carry out the following actions when it identifies additional projects:

- (A) Notify the public via a display advertisement in a newspaper of general circulation in that area.

- (B) Update and distribute the fact sheet to the mailing list and repository locations.

w) Caltrans implementation of this variance shall comply with all applicable state policies for water quality control, water quality control plans, waste discharge requirements (including storm water permits), and others issued by the State Water Resources Control Board or a California Regional Water Quality Control Board.

x) This variance is applicable only to soil considered hazardous because of aerially-deposited lead contamination. The variance is not applicable to any other hazardous waste.

y) Lead-contaminated soil may be buried only in areas where access is limited or where lead-contaminated soil is covered and contained by a pavement structure.

- 1) Dust containing lead-contaminated soil must be controlled. Water or dust palliative may be applied to control dust. If visible dust migration occurs, all excavation, stockpiling and truck loading and burying must be stopped. The granting of this variance confers no relief on Caltrans from compliance with the laws, regulations and requirements enforced by any local air district or the California Air Resources Board.

- 2) Sampling and analysis is required to show the lead contaminated soil meets the variance criteria specified in a). All sampling and analysis must be done according to U.S. EPA subsection SW-846.

z) All correspondence shall be directed to the following office:

Frederick S. Moss, Chief  
Permitting Division  
Department of Toxic Substances Control  
400 P Street, 4th Floor  
P.O. Box 806  
Sacramento, CA 95812-0806

Attn: Caltrans Lead Variance Notification Unit

10. DISCLAIMER.

10.1 The issuance of this variance does not relieve Caltrans of the responsibility for compliance with Division 20, Chapter 6.5, HSC, or the regulations adopted thereunder, and any other laws and regulations other than those specifically identified in Section 8 of this variance. Caltrans is subject to all terms and conditions herein. The granting of this variance confers no relief from compliance with any federal, state or local requirements other than those specifically provided herein.

10.2 The issuance of this variance does not release Caltrans from any liability associated with the handling of hazardous waste, except as specifically provided herein and subject to all terms and conditions of this variance.

11. VARIANCE MODIFICATION OR REVOCATION. This variance is subject to review at the discretion of DTSC and may be modified or revoked at any time pursuant to Health and Safety Code section 25143.

12. CEQA DETERMINATION. DTSC adopted a Negative Declaration on September 22, 2000.

Approved:

9/22/00  
Date

Frederick S. Moss  
Frederick S. Moss, Chief  
Permitting Division  
Hazardous Waste Management Program  
Department of Toxic Substances Control



## **APPENDIX H**

Rainy Season Reminder – Example

## **Rainy Season Reminder**

This is a reminder, on **October 1<sup>st</sup>**, the **Rainy Season** will begin and all projects must be prepared for the Rainy Season. The following are the general requirements for SWPPP during the Rainy Season;

A few definitions;

### **Disturbed Soil Areas (DSA);**

Disturbed soil areas (DSA) are areas of exposed, erodible soil that are within the construction limits and that result from construction activities. The following are **not** considered DSAs:

1. Areas where soil stabilization, erosion control, highway planting or slope protection are applied and associated drainage facilities are in place and functional.
2. Roadways, construction roads, access roads or contractor's yards that have been stabilized by the placement of compacted subbase or base material or paved surfacing.
3. Areas where construction has been completed in conformance with the contract plans and permanent erosion control is in place and functional.

### **Disturbed Soil Area Size Limitations;**

Limiting the amount of disturbed soil is a critical component in conducting an effective storm water management program. Section 7-1.01G, Water Pollution, of the Standard Specifications dated July 1999, paragraph nine states; *"Unless otherwise approved by the resident engineer in writing, the contractor shall not expose a total area of erodible earth material, which may cause water pollution exceeding 70,000 m<sup>2</sup> for each separate location, operation or spread of equipment before either temporary or permanent erosion control measures are accomplished."* The RE has the option of increasing the size of disturbed soil areas beyond 70,000 square meter (17 acres) if appropriate control practices and implementation plan are included in an approved SWPPP.

If a project has more than 17 acres disturbed, then there needs to be a letter in the project files justifying the amount of disturbed area.

Furthermore, the projects Special Provisions may restrict the DSA to 2 hectares (5 acres) during the rainy season. The RE has the option of increasing this limitation of the limit of the total disturbed area during the rainy season beyond 2 hectares (5 acres) if the appropriate control practices and an implementation plan are included in an approved SWPPP.

### **Active Areas;**

Active Areas are construction areas where soil-disturbing activities have already occurred and continue to occur or will occur during the ensuing **21** days.

### **Non-Active Areas;**

Non-Active Areas, are construction areas (**formerly Active Areas**) that will be idle for at least **21** days.

### **Special Note:**

The Resident Engineer shall conduct field reviews of existing Active Areas on a regular basis to determine if a Non-Active status should be applied to some DSAs.

### Rainy Season Requirements;

As per table **2-2** (Section 2, 7 of 10 page), the Temporary BMPs for **Non-Active DSAs**, in the Construction Site Best Management Practices Manual, **Rainy Season** requirements are as follows;

**Area 6:** projects above the elevation of 1200m (3,936.9 feet), **soil Stabilization and linear sediment barriers** are required on all slopes. **Desilting basins** are required only where feasible.

**Areas 2,3,4&5:** **soil stabilization** is required on all slopes, **linear sediment barrier** is required on all slopes greater than 1:20.

**Area 7:** **Linear sediment barriers** are required on all slopes.

As per table **2-3** (Section 2, 8 of 10 page), the Temporary BMPs for **Active DSAs**, in the Construction Site Best Management Practices Manual, **Rainy Season** requirements are as follows;

**Area 6:** projects above the elevation of 1200m (3,936.9 feet), **soil Stabilization** is required on slopes 1:20 and greater, **linear sediment barrier** is required on **all** slopes, **desilting basins** required for slopes 1:20 and greater where feasible.

**Areas 2,4&5:** **Linear Sediment Barrier** is required on slopes greater than 1:20, **desilting basins** required for slopes 1:2 or greater

**Area 3: soil stabilization** required on slopes 1:2 or greater, **linear sediment barrier** required on slopes 1:20 and greater, **desilting basins** are required for slope greater than 1:2.

**Area 7: linear sediment barrier** is required on all slopes.

Remember these are the general requirements for the Rainy Season be sure to check your projects SWPPP for specific requirements.

If you have any questions please contact this office.



## **APPENDIX I**

Rain Storm Alert – Example

## **Rain Storm Alert**

This is a **Storm Alert**; for the **Districts Regions**, there is a 30% chance of a **Storm Event with Rain**; beginning **April 25<sup>th</sup>**, Thursday afternoon, by April 26<sup>th</sup>, Friday afternoon (50%).

**The following are just a few reminders:**

- 1 Make sure that all of your projects SWPPP, or WPCP, **BMP's are in-place, installed and maintained correctly**, as per the BMP Manual. The contractor's, **active disturbed soil areas (DSA's) should be protected by the end of the day.**
- 2 The **contractor's non-active disturbed soil areas, should have been stabilized and protected** with linear barriers such as silt fence, or gravel bags, at the toe of the slope.

As per the projects WPCP or SWPPP and that the BMP's are installed as per the details in the BMP Manual.

- 3 Make sure that the **contractors stockpiled materials** are protected with either a **linear barrier** around the perimeter of the stockpile or the stockpile **should be covered with plastic, or both.**

**See detail, WM-3 Stockpile Management, in the BMP Manual, Section 8.**

- 4 Have you done your **Pre-Storm Field Inspections** ? Make sure that you have a copy of **the contractor's, Pre-Storm Field Inspections** and a copy of **your Pre-Storm Field Inspection**, in **Section 20** of your project file.

See the requirements for the inspections in your projects Special Provisions.

\* Don't forget the Post Storm reviews of your projects. This is when you'll detect BMP failures and discharges.

- 5 We are in our **Rainy Seasons**, so be sure to check your projects, Special Provisions and the SWPPP, or WPCP, for all of your projects Rainy season requirements.
- 6 **All of your existing flow lines** should be clean and protected. If you have disturbed soil areas (DSA's), that are adjacent to existing flow lines, those flow lines should be protected in accordance with what your projects WPCP or SWPPP indicates.
7. Reminder, if during the storm you have a discharge from your project you'll need to file a **"Notice of Discharge"**, with the Regional Water Quality control Board

for your area. This should not be a problem if your contractor's has all his BMPs in place. Be sure to send a copy of the Notice of Discharge to our office.

If you have any questions please contact this office at **(909) 830-6953**.

**“Sorry for this last minute notice but our weather system today is changing with great rapidity.”**

P.S. Please make copies of this for your office personnel and distribute to your oversite Resident Engineers.



## **APPENDIX J**

Assistance Inspection Checklist and Report Form

## PROJECT INFORMATION

<b>Inspection Type:</b> <input type="checkbox"/>	<b>Initial</b> <input type="checkbox"/>	<b>Regular</b> <input type="checkbox"/>	<b>Pre-Storm</b> <input type="checkbox"/>	<b>Post-Storm</b>
<b>Inspection Participant(s):</b>	<input type="checkbox"/> RE	<input type="checkbox"/> Senior CE	<input type="checkbox"/> Contractor	

Date of last SWPP Inspection conducted by Caltrans personnel. \_\_\_\_\_

[illegible]

**SWPP BMPS DETAILED INSPECTION CHECKLIST**

Cnty., Rte. & P.M.:	Project No.:
SWTF Inspector(s):	Date:

**1. TEMPORARY SOIL STABILIZATION BMPS – MINIMUM REQUIREMENT**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			SS-1 Scheduling	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-2 Preservation of Existing Vegetation	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-3 Hydraulic Mulch *	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-4 Hydroseeding *	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-5 Soil Binders *	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-6 Straw Mulch *	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-7 Geotextiles, Plastic Covers, & Erosion Control Blankets/Mats *	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Implementation depends on applicability to a project

\* The contractor shall select one of the five measures listed or a combination thereof to achieve and maintain the contract's rainy season disturbed soil area (DSA) requirements.

**1a. ADDITIONAL TEMPORARY SOIL STABILIZATION BMPS**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			SS-8 Wood Mulching	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-9 Earth Dikes, Drainage Swales & Lined Ditches	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-10 Outlet Protection/Velocity Dissipation Devices	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SS-11 Slope Drains	<input type="checkbox"/> Yes <input type="checkbox"/> No		
				<input type="checkbox"/> Yes <input type="checkbox"/> No		

Implementation depends on applicability to a project

**SWPP BMPs DETAILED INSPECTION CHECKLIST**

Cnty., Rte. & P.M.:	Project No.:
SWTF Inspector(s):	Date:

**2. TEMPORARY SEDIMENT CONTROL BMPs – MINIMUM REQUIREMENT**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			SC-1 Silt Fences	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-7 Street Sweeping and Vacuuming	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-10 Storm Drain Inlet Protection	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**2a. ADDITIONAL TEMPORARY SEDIMENT CONTROL BMPs**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			SC-2 Desilting Basin	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-3 Sediment Trap	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-4 Check Dam	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-5 Fiber Rolls	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-6 Gravel Bag Berm	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-8 Sandbag Barrier	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			SC-9 Straw Bale Barrier	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**3. WIND EROSION CONTROL BMPs - MINIMUM REQUIREMENT**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			WE-1 Wind Erosion Control	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**SWPP BMPS DETAILED INSPECTION CHECKLIST**

Cnty., Rte. & P.M.:	Project No.:
SWTF Inspector(s):	Date:

**4. TRACKING CONTROL BMPS**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			CD29A-Stabilized Construction Entrance	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			CD29B-Stabilized Construction Roadway	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			CD29C-Entrance/Outlet Tire Wash	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**5. NON-STORM WATER MANAGEMENT BMPS – MINIMUM REQUIREMENT**

Is the Contractor's yard on State Right of Way or otherwise arranged by contract documents? ☐ Yes ☐ No

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			NS-6 Illicit Connection/Illegal Discharge Detection and Reporting	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-8 Vehicle and Equipment Cleaning	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-9 Vehicle and Equipment Fueling	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-10 Vehicle and Equipment Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**5a. ADDITIONAL NON-STORM WATER MANAGEMENT BMPS**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			NS-1 Water Conservation Practices	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-2 Dewatering Operations	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-3 Paving and Grinding Operations	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-4 Temporary Stream Crossing	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-5 Clear Water Diversion	<input type="checkbox"/> Yes <input type="checkbox"/> No		
			NS-7 Potable Water/Irrigation	<input type="checkbox"/> Yes <input type="checkbox"/> No		

**SWPP BMPS DETAILED INSPECTION CHECKLIST**

Cnty., Rte. & P.M.:	Project No.:
SWTF Inspector(s):	Date:

**6. WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPS – MINIMUM REQUIREMENT**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			<b>WM-1</b> Material Delivery and Storage	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-2</b> Material Use	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-4</b> Spill Prevention and Control	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-5</b> Solid Waste Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-9</b> Sanitary/Septic Waste Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		

**6a. ADDITIONAL WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPS**

IN PLAN	IN USE	Add'l NEEDED	BMP DESCRIPTION	GENERALLY IMPLEMENTED PROPERLY	PHOTO #	LOCATION(S)/COMMENTS
			<b>WM-3</b> Stockpile Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-6</b> Hazardous Waste Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-7</b> Contaminated Soil Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-8</b> Concrete Waste Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		
			<b>WM-10</b> Liquid Waste Management	<input type="checkbox"/> Yes		
				<input type="checkbox"/> No		

**SWPP BMPS DETAILED INSPECTION CHECKLIST**

Cnty., Rte. & P.M.:	Project No.:
SWTF Inspector(s):	Date:

DOCUMENTATION IN PROJECT FILES	Yes	No	N/A	Comments
<b>Documents: SWPPP / WPCP ( verify approval)</b>				
<b>WPC drawings</b>				
BMP methods: <i>Temp. Soil Stabilization</i>				
<i>Temp. Sediment Control</i>				
<i>Wind Erosion Control</i>				
<i>Tracking Control</i>				
<i>Non-Storm Water Mgmt.</i>				
<i>Waste Mgmt. &amp; Material PC</i>				
<i>Maintenance program</i>				
<i>Subcontractors list</i>				
<i>Amendments</i>				
Annual Certification – Due 6/15				
<b>Inspection Reports:</b> Contractor Reports				
<i>Inspection logs</i>				
Caltrans Reports				
Agency Reports				
Photographs				
<b>Correspondence:</b> Contractor/Caltrans				
Caltrans/Contractor				
Caltrans/RWQCB				
<i>Other</i>				
<b>Permits:</b> General/Local/NPDES				
<i>Dewatering</i>				
Corps of Engineer (404)				
Department Fish & Game				
Other				
Other Documents: <i>Caltrans SW Handbooks (date)</i>				
<i>Special Provisions</i>				

## PHOTOGRAPHIC LOG

Project No.:	Date:
--------------	-------

[illegible]



## **APPENDIX K**

Rainfall Area Definitions

Recommended Combination of Temporary Soil Stabilization and Temporary Sediment Barriers  
for Nonactive Disturbed Soil Areas

Recommended Combination of Temporary Soil Stabilization and Temporary Sediment Barriers  
for Active Disturbed Soil Areas

## Rainfall Area Definitions

**TABLE 2-1: RAINFALL AREA DEFINITIONS**

AREA	DESCRIPTION	
	Applicability	Elevation
1	District 1 in the following areas: all of Del Norte and Humboldt Counties within 20 miles of the coast in Mendocino County	≤1200m
2	District 1 (except within Area 1) District 2 within the North Coast, Central Valley and Lahontan RWQCB jurisdictions Districts 3, 4 and 5	<250 m
3	District 1 (except within Area 1) District 2 within the North Coast, Central Valley and Lahontan RWQCB jurisdictions Districts 3, 4 and 5	250m–1200m
4	District 6 within the Central Valley RWQCB jurisdiction District 7 - within the Central Coast, Los Angeles, and Central Valley RWQCB jurisdictions District 8 within the Santa Ana and San Diego RWQCB jurisdictions District 10 District 11 within the San Diego RWQCB jurisdiction District 12	<500m
5	District 6 within the Central Valley RWQCB jurisdiction District 7 within the Central Coast, Los Angeles, and Central Valley RWQCB jurisdictions District 8 within the Santa Ana and San Diego RWQCB jurisdictions District 10 District 11 within the San Diego RWQCB jurisdiction District 12	500m–1200m
6	Statewide	>1200m
7	District 6 within the Lahontan RWQCB jurisdiction District 7 within the Lahontan RWQCB jurisdiction District 8 within the Lahontan and Colorado River Basin RWQCB jurisdictions District 9 District 11 within the Colorado River Basin RWQCB jurisdiction	≤1200m

Recommended Combination of Temporary Soil Stabilization and Temporary Sediment Barriers  
for Nonactive Disturbed Soil Areas

TABLE 2-2: Recommended Combination OF TEMPORARY SOIL STABILIZATION, TEMPORARY SEDIMENT Controls And BARRIERS <sup>(6) (7)</sup>						
NONACTIVE DISTURBED SOIL AREAS						
SEASON	RAINFALL AREA(S)	TEMPORARY BMP	SLOPE (V:H) <sup>(1)</sup>			
			≤ 1:20	> 1:20 ≤ 1:4	> 1:4 ≤ 1:2	> 1:2
RAINY <sup>(2)</sup>	1 & 6	SOIL STABILIZATION <sup>(5)</sup>	X	X	X	X
		SEDIMENT BARRIER <sup>(5)</sup>	X	X	X	X
		DESILTING BASIN <sup>(3)</sup>		X	X	X
	2, 3, 4 & 5	SOIL STABILIZATION <sup>(5)</sup>	X	X	X	X
		SEDIMENT BARRIER		X	X	X
		DESILTING BASIN				
NON-RAINY	1	SOIL STABILIZATION <sup>(5)</sup>	X <sup>(4)</sup>	X <sup>(4)</sup>	X	X
		SEDIMENT BARRIER		X <sup>(4)</sup>	X	X
		DESILTING BASIN				
	2 & 4	SOIL STABILIZATION				
		SEDIMENT BARRIER				
		DESILTING BASIN				
	3 & 5	SOIL STABILIZATION				
		SEDIMENT BARRIER				X
		DESILTING BASIN				
	6	SOIL STABILIZATION <sup>(5)</sup>	X <sup>(4)</sup>	X <sup>(4)</sup>	X	X
		SEDIMENT BARRIER		X <sup>(4)</sup>	X	X
		DESILTING BASIN <sup>(3)</sup>				X

1. Unless otherwise noted, the temporary BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters.
2. The maximum slope length is 30 meters for slope inclinations between 1:20 and 1:2 and 15 meters for steeper slopes.
3. Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
4. Implementation of controls not required except at least 24 hours prior to all predicted rain events.
5. The indicated temporary BMP is required on all slope lengths.
6. Sediment controls and barriers include all temporary sediment control construction BMPs identified in Appendix B.4 of the SWMP and Section 4 of these Guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is to provide a barrier to prevent the transport of sediment at the downslope edge of disturbed soil areas.
7. Permanent erosion control seeding shall be applied during the defined seeding window to all nonactive areas deemed substantially complete.

Recommended Combination of Temporary Soil Stabilization and Temporary Sediment Barriers  
for Active Disturbed Soil Areas

TABLE 2-3: Recommended COMBINATION OF TEMPORARY SOIL STABILIZATION, TEMPORARY SEDIMENT Controls And BARRIERS <sup>(6)</sup>					
ACTIVE DISTURBED SOIL AREAS <sup>(3)</sup>					
SEASON	RAINFALL AREA(S)	TEMPORARY BMP	SLOPE (V:H) <sup>(1)</sup>		
			≤ 1:20	> 1:20 ≤ 1:2	> 1:2
RAINY	1 & 6	SOIL STABILIZATION		X	X
		SEDIMENT BARRIER <sup>(4)</sup>	X	X	X
		DESILTING BASIN <sup>(2)</sup>		X	X
	2, 4 & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN <sup>(2)</sup>			X <sup>(5)</sup>
	3	SOIL STABILIZATION			X <sup>(5)</sup>
		SEDIMENT BARRIER		X	X
		DESILTING BASIN <sup>(2)</sup>			X <sup>(5)</sup>
NON-RAINY	1	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN <sup>(2)</sup>			X <sup>(5)</sup>
	2, 3, 4, & 5	SOIL STABILIZATION			
		SEDIMENT BARRIER			
		DESILTING BASIN			
	6	SOIL STABILIZATION			
		SEDIMENT BARRIER		X	X
		DESILTING BASIN <sup>(2)</sup>			X

1. Unless otherwise noted, the BMP is required for the slope inclinations indicated on slope lengths greater than 3 meters.
2. Required in addition to the temporary sediment barrier, where feasible. Feasibility will depend on site-specific factors such as available right-of-way within the project limits, topography, soil type, disturbed soil area within watershed, and climate conditions.
3. Implementation of controls not required except prior to predicted rain.
4. The indicated temporary BMP is required on all slope lengths.
5. The indicated temporary BMP is required on slope lengths greater than 15 meters.
6. Sediment controls and barriers include all temporary sediment control construction BMPs identified in Appendix B.4 of the SWMP and Section 4 of these Guidelines. Linear barrier systems are equivalent to what are referred to in the General Construction Permit as perimeter controls. The intent is to provide a barrier to prevent the transport of sediment at the downslope edge of disturbed soil areas.



## **APPENDIX L**

CERCLA Hazardous Substance List

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Acenaphthene.....	83329	.....	1*	2	.....	B	100 (45.4)
Acenaphthylene.....	208968	.....	1*	2	.....	D	5000 (2270)
Acetaldehyde.....	75070	Ethanal.....	1000	1,3,4	U001	C	1000 (454)
Acetaldehyde, chloro-.....	107200	Chloroacetaldehyde.....	1*	4	P023	C	1000 (454)
Acetaldehyde, trichloro-.....	75876	Chloral.....	1*	4	U034	D	5000 (2270)
Acetamide.....	60355	.....	1*	3	.....	B	100 (45.4)
Acetamide, N-(aminothioxomethyl)-.....	591082	1-Acetyl-2-thiourea.....	1*	4	P002	C	1000 (454)
Acetamide, N-(4-ethoxyphenyl)-.....	62442	Phenacetin.....	1*	4	U187	B	100 (45.4)
Acetamide, 2-fluoro-.....	640197	Fluoroacetamide.....	1*	4	P057	B	100 (45.4)
Acetamide, N-9H-fluoren-2-yl-.....	53963	2-Acetylaminofluorene.....	1*	3,4	U005	X	1 (0.454)
Acetic acid.....	64197	.....	1000	1	.....	D	5000 (2270)
Acetic acid (2,4-dichlorophenoxy)-, salts & esters.	94757	2,4-D Acid.....	100	1,3,4	U240	B	100 (45.4)
Acetic acid, Lead(2+) salt.....	301042	2,4-D,salts and esters....					
Acetic acid, thallium (1+) salt.....	563688	Lead acetate.....	5000	1,4	U144	A	10 (4.54)
Acetic acid, (2,4,5-trichlorophenoxy).	93765	Thallium(II) acetate.....	1*	4	U214	B	100 (45.4)
		2,4,5-T.....	100	1,4	U232	C	1000 (454)
		2,4,5-T acid.....					
Acetic acid, ethyl ester.....	141786	Ethyl acetate.....	1*	4	U112	D	5000 (2270)
Acetic acid, fluoro-, sodium salt.....	62748	Fluoroacetic acid, sodium salt.	1*	4	P058	A	10 (4.54)
Acetic anhydride.....	108247	.....	1000	1	.....	D	5000 (2270)
Acetone.....	67641	2-Propanone.....	1*	4	U002	D	5000 (2270)
Acetone cyanohydrin.....	75865	Propanenitrile, 2-hydroxy-2-methyl-2-Methylactonitrile.	10	1,4	P069	A	10 (4.54)
Acetonitrile.....	75058	.....	1*	3,4	U003	D	5000 (2270)
Acetophenone.....	98862	Ethanone, 1-phenyl-.....	1*	3,4	U004	D	5000 (2270)
2-Acetylaminofluorene.....	53963	Acetamide, N-9H-fluoren-2-yl-.	1*	3,4	U005	X	1 (0.454)
Acetyl bromide.....	506967	.....	5000	1	.....	D	5000 (2270)
Acetyl chloride.....	75365	.....	5000	1,4	U006	D	5000 (2270)
1-Acetyl-2-thiourea.....	591082	Acetamide, N-(aminothioxomethyl)-.	1*	4	P002	C	1000 (454)
Acrolein.....	107028	2-Propenal.....	1	1,2,3,4	P003	X	1 (0.454)
Acrylamide.....	79061	2-Propenamide.....	1*	3,4	U007	D	5000 (2270)
Acrylic acid.....	79107	2-Propenoic acid.....	1*	3,4	U008	D	5000 (2270)
Acrylonitrile.....	107131	2-Propenenitrile.....	100	1,2,3,4	U009	B	100 (45.4)
Adipic acid.....	124049	.....	5000	1	.....	D	5000 (2270)
Aldicarb.....	116063	Propanal, 2-methyl-2-(methylthio)-,O-[ (methylamino)carbonyl]oxime.	1*	4	P070	X	1 (0.454)
Aldrin.....	309002	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5alp ha,8abeta)-.	1	1,2,4	P004	X	1 (0.454)
Allyl alcohol.....	107186	2-Propen-1-ol.....	100	1,4	P005	B	100 (45.4)
Allyl chloride.....	107051	.....	1000	1,3	.....	C	1000 (454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Aluminum phosphide.....	20859738	.....	1*	4	P006	B	100 (45.4)
Aluminum sulfate.....	10043013	.....	5000	1	.....	D	5000 (2270)
4-Aminobiphenyl.....	92671	.....	1*	3	.....	X	1 (0.454)
5-(Aminomethyl)-3-isoxazolol.....	2763964	Muscimol 3(2H)- Isoxazolone, 5- (aminomethyl)-.	1*	4	P007	C	1000 (454)
4-Aminopyridine.....	504245	4-Pyridinamine.....	1*	4	P008	C	1000 (454)
Amitrole.....	61825	1H-1,2,4-Triazol-3-amine..	1*	4	U011	A	10 (4.54)
Ammonia.....	7664417	.....	100	1	.....	B	100 (45.4)
Ammonium acetate.....	631618	.....	5000	1	.....	D	5000 (2270)
Ammonium benzoate.....	1863634	.....	5000	1	.....	D	5000 (2270)
Ammonium bicarbonate.....	1066337	.....	5000	1	.....	D	5000 (2270)
Ammonium bichromate.....	7789095	.....	1000	1	.....	A	10 (4.54)
Ammonium bifluoride.....	1341497	.....	5000	1	.....	B	100 (45.4)
Ammonium bisulfite.....	10192300	.....	5000	1	.....	D	5000 (2270)
Ammonium carbamate.....	1111780	.....	5000	1	.....	D	5000 (2270)
Ammonium carbonate.....	506876	.....	5000	1	.....	D	5000 (2270)
Ammonium chloride.....	12125029	.....	5000	1	.....	D	5000 (2270)
Ammonium chromate.....	7788989	.....	1000	1	.....	A	10 (4.54)
Ammonium citrate, dibasic.....	3012655	.....	5000	1	.....	D	5000 (2270)
Ammonium fluoborate.....	13826830	.....	5000	1	.....	D	5000 (2270)
Ammonium fluoride.....	12125018	.....	5000	1	.....	B	100 (45.4)
Ammonium hydroxide.....	1336216	.....	1000	1	.....	C	1000 (454)
Ammonium oxalate.....	6009707	.....	5000	1	.....	D	5000 (2270)
Ammonium picrate.....	5972736	.....					
Ammonium picrate.....	14258492	.....					
Ammonium picrate.....	131748	Phenol, 2,4,6-trinitro-, ammonium salt.	1*	4	P009	A	10 (4.54)
Ammonium silicofluoride.....	16919190	.....	1000	1	.....	C	1000 (454)
Ammonium sulfamate.....	7773060	.....	5000	1	.....	D	5000 (2270)
Ammonium sulfide.....	12135761	.....	5000	1	.....	B	100 (45.4)
Ammonium sulfite.....	10196040	.....	5000	1	.....	D	5000 (2270)
Ammonium tartrate.....	14307438	.....	5000	1	.....	D	5000 (2270)
Ammonium thiocyanate.....	3164292	.....					
Ammonium thiocyanate.....	1762954	.....	5000	1	.....	D	5000 (2270)
Ammonium vanadate.....	7803556	Vanadic acid, ammonium salt.	1*	4	P119	C	1000 (454)
Amyl acetate.....	628637	.....	1000	1	.....	D	5000 (2270)
iso-Amyl acetate.....	123922	.....					
sec-Amyl acetate.....	626380	.....					
tert-Amyl acetate.....	625161	.....					
Aniline.....	62533	Benzenamine.....	1000	1,3,4	U012	D	5000 (2270)
o-Anisidine.....	90040	.....	1*	3	.....	B	100 (45.4)
Anthracene.....	120127	.....	1*	2	.....	D	5000 (2270)
Antimony <dagger><dagger>.....	7440360	.....	1*	2	.....	D	5000 (2270)
ANTIMONY AND COMPOUNDS.....	N.A.	Antimony Compounds.....	1*	2,3	.....		<SUP>*</SUP>
Antimony Compounds.....	N.A.	ANTIMONY AND COMPOUNDS.....	1*	2,3	.....		<SUP>*</SUP>
Antimony pentachloride.....	7647189	.....	1000	1	.....	C	1000 (454)
Antimony potassium tartrate.....	28300745	.....	1000	1	.....	B	100 (45.4)
Antimony tribromide.....	7789619	.....	1000	1	.....	C	1000 (454)
Antimony trichloride.....	10025919	.....	1000	1	.....	C	1000 (454)
Antimony trifluoride.....	7783564	.....	1000	1	.....	C	1000 (454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Antimony trioxide.....	1309644	.....	5000	1	.....	C	1000 (454)
Argentate(1-), bis(cyano-C)-, potassium.	506616	Potassium silver cyanide..	1*	4	P099	X	1 (0.454)
Aroclor 1016.....	12674112	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1221.....	11104282	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1232.....	11141165	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1242.....	53469219	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1248.....	12672296	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1254.....	11097691	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1260.....	11096825	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
		PCBs.....					
		POLYCHLORINATED BIPHENYLS.					
Aroclors.....	1336363	PCBs.....	10	1,2,3	.....	X	1 (0.454)
		POLYCHLORINATED BIPHENYLS.					
Aroclor 1016.....	12674112	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1221.....	11104282	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1232.....	11141165	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1242.....	53469219	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1248.....	12672296	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1254.....	11097691	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1260.....	11096825	.....	10	1,2,3	.....	X	1 (0.454)
Arsenic <dagger><dagger>.....	7440382	.....	1*	2,3	.....	X	1 (0.454)
Arsenic acid.....	1327522	Arsenic acid H<INF>3</INF> AsO<INF>4</INF>.. 1*	AsO<INF>4</INF>.. 1*	2,3	.....	X	1 (0.454)
	7778394	.....			4 P010	X	1 (0.454)
Arsenic acid H<INF>3</INF> AsO<INF>4</INF>.....	1327522	Arsenic acid.....	1*	4	P010	X	1 (0.454)
	7778394	.....					
ARSENIC AND COMPOUNDS.....	N.A.	Arsenic Compounds (inorganic including arsine).	1*	2,3	.....	<SUP>*</SUP>	<SUP>*</SUP>
Arsenic Compounds (inorganic including arsine).	N.A.	ARSENIC AND COMPOUNDS.....	1*	2,3	.....	<SUP>*</SUP>	<SUP>*</SUP>
Arsenic disulfide.....	1303328	.....	5000	1	.....	X	1 (0.454)
Arsenic oxide As<INF>2</INF> O<INF>3</INF>	1327533	Arsenic trioxide.....	5000	1,4	P012	X	1 (0.454)
Arsenic oxide As<INF>2</INF> O<INF>5</INF>	1303282	Arsenic pentoxide.....	5000	1,4	P011	X	1 (0.454)
Arsenic pentoxide.....	1303282	Arsenic oxide As<INF>2</INF> O<INF>5</INF>..5000	5000	1,4	P011	X	1 (0.454)
Arsenic trichloride.....	7784341	.....	5000	1	.....	X	1 (0.454)
Arsenic trioxide.....	1327533	Arsenic oxide As<INF>2</INF> O<INF>3</INF>..5000	5000	1,4	P012	X	1 (0.454)
Arsenic trisulfide.....	1303339	.....	5000	1	.....	X	1 (0.454)
Arsine, diethyl-.....	692422	Diethylarsine.....	1*	4	P038	X	1 (0.454)
Arsinic acid, dimethyl-.....	75605	Cacodylic acid.....	1*	4	U136	X	1 (0.454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Arsonous dichloride, phenyl-.....	696286	Dichlorophenylarsine.....	1*	4	P036	X	1 (0.454)
Asbestos <dagger><dagger><dagger>.....	133214	.....	1*	2,3	.....	X	1 (0.454)
Auramine.....	492808	Benzenamine, 4,4'- carbonimidoylbis (N,N- dimethyl- (ester)).	1*	4	U014	B	100 (45.4)
Azaserine.....	115026	L-Serine, diazoacetate (ester).	1*	4	U015	X	1 (0.454)
Aziridine.....	151564	Ethyleneimine.....	1*	3,4	P054	X	1 (0.454)
Aziridine, 2-methyl-.....	75558	2-Methyl aziridine 1,2- Propyleneimine.	1*	3,4	P067	X	1 (0.454)
Azirino[2',3':3,4]pyrrolo[1,2-a]indole- 4,7-dione,6-amino-8- [[ (aminocarbonylooxyl)methyl]- 1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5- methyl-, [1aS- (1aalpha,8beta,8aalpha,8balpha)]-.	50077	Mitomycin C.....	1*	4	U010	A	10 (4.54)
Barium cyanide.....	542621	.....	10	1,4	P013	A	10 (4.54)
Benz[j]aceanthrylene, 1,2-dihydro-3- methyl-	56495	3-Methylcholanthrene.....	1*	4	U157	A	10 (4.54)
Benz[cl]acridine.....	225514	.....	1*	4	U016	B	100 (45.4)
Benzal chloride.....	98873	Benzene, dichloromethyl-.	1*	4	U017	D	5000 (2270)
Benzamide, 3,5-dichloro-N-(1,1- dimethyl-2-propynyl)-.	23950585	Pronamide.....	1*	4	U192	D	5000 (2270)
Benz[al]anthracene.....	56553	Benzo[al]anthracene.....	1*	2,4	U018	A	10 (4.54)
1,2-Benzanthracene.....	56553	1,2-Benzanthracene.....	1*	2,4	U018	A	10 (4.54)
Benz[al]anthracene, 7,12-dimethyl-.....	57976	Benzo[al]anthracene.....	1*	4	U094	X	1 (0.454)
Benzenamine.....	62533	Dimethylbenz[al]anthracene. Aniline.....	1000	1,3,4	U012	D	5000 (2270)
Benzenamine, 4,4'-carbonimidoylbis (N,N-dimethyl-	492808	Auramine.....	1*	4	U014	B	100 (45.4)
Benzenamine, 4-chloro-.....	106478	p-Chloroaniline.....	1*	4	P024	C	1000 (454)
Benzenamine, 4-chloro-2-methyl-, hydrochloride	3165933	4-Chloro-o-toluidine, hydrochloride.	1*	4	U049	B	100 (45.4)
Benzenamine, N,N-dimethyl-4- (phenylazo- ) .	60117	Dimethyl aminoazobenzene.. p-Dimethylaminoazobenzene.	1*	3,4	U093	A	10 (4.54)
Benzenamine, 2-methyl-.....	95534	o-Toluidine.....	1*	3,4	U328	B	100 (45.4)
Benzenamine, 4-methyl-.....	106490	p-Toluidine.....	1*	4	U353	B	100 (45.4)
Benzenamine, 4,4-methylenebis(2-chloro- ) .	101144	4,4-Methylenebis(2- chloroaniline).	1*	3,4	U158	A	10 (4.54)
Benzenamine, 2-methyl-, hydrochloride.	636215	o-Toluidine hydrochloride.	1*	4	U222	B	100 (45.4)
Benzenamine, 2-methyl-5-nitro-.....	99558	5-Nitro-o-toluidine.....	1*	4	U181	B	100 (45.4)
Benzenamine, 4-nitro-.....	100016	p-Nitroaniline.....	1*	4	P077	D	5000 (2270)
Benzene <SUP>a</SUP></SUP>.....	71432	.....	1000	1,2,3,4	U109	A	10 (4.54)
Benzenecetic acid, 4-chloro-<greek-a>- (4-chlorophenyl)-<greek-a>-hydroxy-, ethyl ester.	510156	Chlorobenzilate.....	1*	3,4	U038	A	10 (4.54)
Benzene, 1-bromo-4-phenoxy-.....	101553	4-Bromophenyl phenyl ether	1*	2,4	U030	B	100 (45.4)
Benzenecbutanoic acid, 4-[bis(2- chloroethyl)amino]-	305033	Chlorambucil.....	1*	4	U035	A	10 (4.54)
Benzene, chloro-.....	108907	Chlorobenzene.....	100	1,2,3,4	U037	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Benzene, chloromethyl-.....	100447	Benzyl chloride.....	100	1,3,4	P028	B	100 (45.4)
Benzenediamine, ar-methyl-.....	95807	Toluenediamine.....	1*	3,4	U221	A	10 (4.54)
	496720	2,4-Toluene diamine					
	823405						
	25376458						
1,2-Benzenedicarboxylic acid, dioctyl ester.	117840	Di-n-octyl phthalate.....	1*	2,4	U107	D	5000 (2270)
1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester.	117817	Bis(2-ethylhexyl)phthalate DEHP.....	1*	2,3,4	U028	B	100 (45.4)
		Diethylhexyl phthalate....					
1,2-Benzenedicarboxylic acid, dibutyl ester.	84742	n-Butyl phthalate.....	100	1,2,3,4	U069	A	10 (4.54)
		Dibutyl phthalate.....					
1,2-Benzenedicarboxylic acid, diethyl ester.	84662	Di-n-butyl phthalate.....	1*	2,4	U088	C	1000 (454)
		Diethyl phthalate.....					
1,2-Benzenedicarboxylic acid, dimethyl ester.	131113	Dimethyl phthalate.....	1*	2,3,4	U102	D	5000 (2270)
Benzene, 1,2-dichloro-.....	95501	o-Dichlorobenzene.....	100	1,2,4	U070	B	100 (45.4)
		1,2-Dichlorobenzene.....					
Benzene, 1,3-dichloro-.....	541731	m-Dichlorobenzene.....	1*	2,4	U071	B	100 (45.4)
		1,3-Dichlorobenzene.....					
Benzene, 1,4-dichloro-.....	106467	p-Dichlorobenzene.....	100	1,2,3,4	U072	B	100 (45.4)
		1,4-Dichlorobenzene.....					
Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	72548	DDD.....	1	1,2,4	U060	X	1 (0.454)
		TDE.....					
		4,4' DDD.....					
Benzene, dichloromethyl-.....	98873	Benzal chloride.....	1*	4	U017	D	5000 (2270)
Benzene, 1,3-diisocyanatomethyl-.....	91087	Toluene diisocyanate.....	1*	3,4	U223	B	100 (45.4)
	584849	2,4-Toluene diisocyanate					
	26471625						
Benzene, dimethyl-.....	1330207	Xylene.....	1000	1,3,4	U239	B	100 (45.4)
		Xylene (mixed).....					
		Xylenes (isomers and mixture).					
Benzene,m-dimethyl-.....	108383	m-Xylene.....	1*	3		C	1000 (454)
Benzene, o-dimethyl-.....	95476	o-Xylene.....	1*	3		C	1000 (454)
Benzene, p-dimethyl-.....	106423	p-Xylene.....	1*	3		B	100 (45.4)
1,3-Benzenediol.....	108463	Resorcinol.....	1000	1,4	U201	D	5000 (2270)
1,2-Benzenediol,4-[1-hydroxy-2-(methylamino)ethyl]-	51434	Epinephrine.....	1*	4	P042	C	1000 (454)
Benzenethanamine, alpha, alpha-dimethyl-.	122098	alpha, alpha-Dimethylphenethylamine.	1*	4	P046	D	5000 (2270)
Benzene, hexachloro-.....	118741	Hexachlorobenzene.....	1*	2,3,4	U127	A	10 (4.54)
Benzene, hexahydro-.....	110827	Cyclohexane.....	1000	1,4	U056	C	1000 (454)
Benzene, hydroxy-.....	108952	Phenol.....	1000	1,2,3,4	U188	C	1000 (454)
Benzene, methyl-.....	108883	Toluene.....	1000	1,2,3,4	U220	C	1000 (454)
Benzene, 2-methyl-1,3-dinitro-.....	606202	2,6-Dinitrotoluene.....	1000	1,2,4	U106	B	100 (45.4)
Benzene, 1-methyl-2,4-dinitro-.....	121142	2,4-Dinitrotoluene.....	1000	1,2,3,4	U105	A	10 (4.54)
Benzene, (1-methylethyl)-.....	98828	Cumene.....	1*	3,4	U055	D	5000 (2270)
Benzene, nitro-.....	98953	Nitrobenzene.....	1000	1,2,3,4	U169	C	1000 (454)
Benzene, pentachloro-.....	608935	Pentachlorobenzene.....	1*	4	U183	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Benzene, pentachloronitro-.....	82688	PCNB..... Pentachloronitrobenzene... Quintobenzene.....	1*	3, 4	U185	B	100 (45.4)
Benzenesulfonic acid chloride.....	98099	Benzenesulfonyl chloride..	1*	4	U020	B	100 (45.4)
Benzenesulfonyl chloride.....	98099	Benzenesulfonic acid chloride.	1*	4	U020	B	100 (45.4)
Benzene, 1,2,4,5-tetrachloro-.....	95943	1,2,4,5-Tetrachlorobenzene	1*	4	U207	D	5000 (2270)
Benzenethiol.....	108985	Thiophenol.....	1*	4	P014	B	100 (45.4)
Benzene, 1,1'-(2,2,2-tri- chloroethylidene)bis(4-chloro- ethylidene).....	50293	DDT.....	1	1,2, 4	U061	X	1 (0.454)
Benzene, 1,1'-(2,2,2-tri- chloroethylidene)bis(4-chloro- ethylidene).....	72435	4,4' DDT.....	1	1,3, 4	U247	X	1 (0.454)
Benzene, (trichloromethyl)-.....	98077	Methoxychlor.....	1*	3, 4	U023	A	10 (4.54)
Benzene, 1,3,5-trinitro-.....	99354	Benzotrachloride.....	1*	4	U234	A	10 (4.54)
Benzidine.....	92875	[1,1'-Biphenyl]-4,4'- diamine.	1*	2,3, 4	U021	X	1 (0.454)
1,2-Benzisothiazol-3(2H)-one, 1,1- dioxide.	81072	Saccharin and salts.....	1*	4	U202	B	100 (45.4)
Benzo[a]anthracene.....	56553	Benz[a]anthracene.....	1*	2, 4	U018	A	10 (4.54)
Benzo[b]fluoranthene.....	205992	1,2-Benzanthracene.....	1*	2	.....	X	1 (0.454)
Benzo[k]fluoranthene.....	207089	.....	1*	2	.....	D	5000 (2270)
Benzo[j,k]fluorene.....	206440	Fluoranthene.....	1*	2, 4	U120	B	100 (45.4)
1,3-Benzodioxol-4-ol, 2,2-dimethyl-, (Bendiocarb phenol).	22961826	.....	1*	4	U364	..	##
1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate (Bendiocarb).	22781233	.....	1*	4	U278	..	##
1,3-Benzodioxole, 5-(1-propenyl)-.....	120581	Isosafrole.....	1*	4	U141	B	100 (45.4)
1,3-Benzodioxole, 5-(2-propenyl)-.....	94597	Safrole.....	1*	4	U203	B	100 (45.4)
1,3-Benzodioxole, 5-propyl-.....	94586	Dihydrosafrole.....	1*	4	U090	A	10 (4.54)
7-Benzofuranol, 2,3-dihydro-2,2- dimethyl- (Carbofuran phenol).	1563388	.....	1*	4	U367	..	##
Benzoic acid.....	65850	.....	5000	1	.....	D	5000 (2270)
Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro- 1,3a,8-trimethylpyrrolo[2,3-b]indol-5- yl methylcarbamate ester (1:1) (Physostigmine salicylate).	57647	.....	1*	4	P188	..	##
Benzonitrile.....	100470	.....	1000	1	.....	D	5000 (2270)
Benzo[1st]pentaphene.....	189559	Dibenz[a,i]pyrene.....	1*	4	U064	A	10 (4.54)
Benzo[ghi]perylene.....	191242	.....	1*	2	.....	D	5000 (2270)
2H-1-Benzopyran-2-one, 4-hydroxy-3-(3- oxo-1-phenyl-butyl)-, & salts, when present at concentrations greater than 0.3%	81812	Warfarin, & salts, when present at concentrations greater than 0.3%.	1*	4	P001	B	100 (45.4)
Benzo[a]pyrene.....	50328	3,4-Benzopyrene.....	1*	2, 4	U022	X	1 (0.454)
3,4-Benzopyrene.....	50328	Benzo[a]pyrene.....	1*	2, 4	U022	X	1 (0.454)
<greek-r>-Benzoquinone.....	106514	2,5-Cyclohexadiene-1,4- dione.	1*	3, 4	U197	A	10 (4.54)
Benzotrachloride.....	98077	Quinone.....	1*	3, 4	U023	A	10 (4.54)
		Benzene, (trichloromethyl)-					

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Benzoyl chloride.....	98884	.....	1000	1	.....	C	1000 (454)
1,2-Benzophenanthrene.....	218019	Chrysene.....	1*	2,4	U050	B	100 (45.4)
Benzyl chloride.....	100447	Benzene, chloromethyl-....	100	1,3,4	P028	B	100 (45.4)
BERYLLIUM AND COMPOUNDS.....	N.A.	Beryllium Compounds.....	1*	2,3	.....	.....	**
Beryllium Compounds.....	N.A.	BERYLLIUM AND COMPOUNDS...	1*	2,3	.....	.....	**
Beryllium chloride.....	7787475	.....	5000	1	.....	X	1 (0.454)
Beryllium fluoride.....	7787497	.....	5000	1	.....	X	1 (0.454)
Beryllium nitrate.....	13597994	.....	5000	1	.....	X	1 (0.454)
	7787555						
Beryllium powder <dagger>.....	7440417	Beryllium <dagger>.....	1*	2,3,4	P015	A	10 (4.54)
alpha--BHC.....	319846	.....	1*	2	.....	A	10 (4.54)
beta--BHC.....	319857	.....	1*	2	.....	X	1 (0.454)
delta--BHC.....	319868	.....	1*	2	.....	X	1 (0.454)
<greek-g>-BHC.....	58899	Cyclohexane, 1,2,3,4,5,6-hexa chloro- (1<greek-a>, 2<greek-a>, 3<greek-b>, 4<greek-a>, 5<greek-a>, 6<greek-b>)-. Hexachlorocyclohexane (gamma isomer). Lindane.....	1	1,2,3,4	U129	X	1 (0.454)
2,2'-Bioxirane.....	1464535	1,2,3,4-Diepoxycyclobutane.....	1*	4	U085	A	10 (4.54)
(1,1'-Biphenyl)-4,4'diamine.....	92875	Benzidine.....	1*	2,4	U021	X	1 (0.454)
[1,1'-Biphenyl]-4,4'diamine,3,3'dichloro-.	91941	3,3'-Dichlorobenzidine....	1*	2,4	U073	X	1 (0.454)
[1,1'-Biphenyl]-4,4'diamine,3,3'dimethoxy-.	119904	3,3'-Dimethoxybenzidine...	1*	4	U091	B	100 (45.4)
[1,1'Biphenyl]-4,4'-diamine,3,3'-dimethyl-.	119937	3,3'-Dimethylbenzidine....	1*	4	U095	A	10 (4.54)
Biphenyl.....	92524	.....	1*	3	.....	B	100 (45.4)
Bis (2-chloroethyl) ether.....	111444	Dichloroethyl ether.....	1*	2,4	U025	A	10 (4.54)
		Ethane,1,1'-oxybis[2-chloro-.					
Bis (2-chloroethoxy) methane.....	111911	Dichloromethoxy ethane....	1*	2,4	U024	C	1000 (454)
		Ethane, 1,1'-[methylenebis (oxy)]bis (2-chloro-.					
Bis (2-ethylhexyl)phthalate.....	117817	Diethylhexyl phthalate....	1*	2,4	U028	B	100 (45.4)
		1,2-Benzenedicarboxylic acid, [bis (2-ethylhexyl)] ester.					
Bromoacetone.....	598312	2-Propanone, 1-bromo-.....	1*	4	P017	C	1000 (454)
Bromoform.....	75252	Methane, tribromo-.....	1*	2,4	U225	B	100 (45.4)
4-Bromophenyl phenyl ether.....	101553	Benzene, 1-bromo-4-phenoxy-	1*	2,4	U030	B	100 (45.4)
Brucine.....	357573	Strychnidin-10-one, 2,3-dimethoxy-.	1*	4	P018	B	100 (45.4)
1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	87683	Hexachlorobutadiene.....	1*	2,4	U128	X	1 (0.454)
1,3-Butadiene.....	106990	.....	1*	3	.....	A	10 (4.54)
1-Butanamine, N-butyl-N-nitroso-....	924163	N-Nitrosodi-n-butylamine..	1*	4	U172	A	10 (4.54)
1-Butanol.....	71363	n-Butyl alcohol.....	1*	4	U031	D	5000 (2270)
2-Butanone.....	78933	MEK.....	1*	3,4	U159	D	5000 (2270)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
2-Butanone peroxide.....	1338234	Methyl ethyl ketone.....	1*	4	U160	A	10 (4.54)
2-Butanone, 3,3-dimethyl-1-(methylthio)-, O[(methylamino)carbonyl] oxime.	39196184	Thiofanox.....	1*	4	P045	B	100 (45.4)
2-Butenal.....	123739 4170303	Crotonaldehyde.....	100	1,4	U053	B	100 (45.4)
2-Butene, 1,4-dichloro.....	764410	1,4-Dichloro-2-butene.....	1*	4	U074	X	1 (0.454)
2-Butenoic acid, 2-methyl-, 7[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[lalpha(2),7(2S*,3R*),7aalpha]]-Butyl acetate.....	303344	Iasiocarpine.....	1*	4	U143	A	10 (4.54)
iso-Butyl acetate.....	123864	.....	5000	1	.....	D	5000 (2270)
sec-Butyl acetate.....	110190	.....	.....	.....	.....	.....	.....
tert-Butyl acetate.....	105464	.....	.....	.....	.....	.....	.....
n-Butyl alcohol.....	540885	.....	.....	.....	.....	.....	.....
Butylamine.....	71363	1-Butanol.....	1*	4	U031	D	5000 (2270)
iso-Butylamine.....	109739	.....	1000	1	.....	C	1000 (454)
sec-Butylamine.....	78819	.....	.....	.....	.....	.....	.....
tert-Butylamine.....	513495	.....	.....	.....	.....	.....	.....
Butyl benzyl phthalate.....	13952846	.....	.....	.....	.....	.....	.....
<greek-ee>-Butyl phthalate.....	75649	.....	1*	2	.....	B	100 (45.4)
.....	85687	1,2-Benzenedicarboxylic acid, dibutyl ester.	100	1,2,3,4	U069	A	10 (4.54)
.....	84742	Dibutyl phthalate.....	.....	.....	.....	.....	.....
.....	.....	Di-n-butyl phthalate.....	.....	.....	.....	.....	.....
Butyric acid.....	107926	.....	5000	1	.....	D	5000 (2270)
iso-Butyric acid.....	79312	.....	.....	.....	.....	.....	.....
Cacodylic acid.....	75605	Arsinic acid, dimethyl-...	1*	4	U136	X	1 (0.454)
Cadmium <dagger><dagger>.....	7440439	.....	1*	2	.....	A	10 (4.54)
Cadmium acetate.....	543908	.....	100	1	.....	A	10 (4.54)
CADMIUM AND COMPOUNDS.....	N.A.	Cadmium Compounds.....	1*	2,3	.....	.....	.....
Cadmium Compounds.....	N.A.	CADMIUM AND COMPOUNDS.....	1*	2,3	.....	.....	.....
Cadmium bromide.....	7789426	.....	100	1	.....	A	10 (4.54)
Cadmium chloride.....	10108642	.....	100	1	.....	A	10 (4.54)
Calcium arsenate.....	7778441	.....	1000	1	.....	X	1 (0.454)
Calcium arsenite.....	52740166	.....	1000	1	.....	X	1 (0.454)
Calcium carbide.....	75207	.....	5000	1	.....	A	10 (4.54)
Calcium chromate.....	13765190	Chromic acid H<INF>2</INF>.....	CrO<INF>4</INF>, 1,4		1000	U032	A
10 (4.54)	.....	calcium salt.	.....	.....	.....	.....	.....
Calcium cyanamide.....	156627	.....	1*	3	.....	C	1000 (454)
Calcium cyanide.....	592018	Calcium cyanide Ca(CN)2...	10	1,4	P021	A	10 (4.54)
Calcium cyanide Ca(CN)2.....	592018	Calcium cyanide.....	10	1,4	P021	A	10 (4.54)
Calcium dodecylbenzenesulfonate.....	26264062	.....	1000	1	.....	C	1000 (454)
Calcium hypochlorite.....	7778543	.....	100	1	.....	A	10 (4.54)
Camphene, octachloro-.....	8001352	Chlorinated camphene.....	1	1,2,3,4	P123	X	1 (0.454)
Captan.....	133062	Toxaphene.....	10	1,3	.....	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Carbamic acid, [1-(butylamino)carbonyl]-1H-benzimidazol-2-yl, methyl ester (Benomyl).	17804352	.....	1*	4	U271	.....	##
Carbamic acid, 1H-benzimidazol-2-yl, methyl ester (Carbendazim).	10605217	.....	1*	4	U372	.....	##
Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester (Barban).	101279	.....	1*	4	U280	.....	##
Carbamic acid, [1-(dibutylamino)thiolmethyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester (Carbosulfan).	55285148	.....	1*	4	P189	.....	##
Carbamic acid, dimethyl-, 1-[(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester (Dimetilan).	644644	.....	1*	4	P191	.....	##
Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester (Isolan).	119380	.....	1*	4	P192	.....	##
Carbamic acid, ethyl ester.....	51796	Ethyl carbamate.....	1*	3, 4	U238	B	100 (45.4)
Carbamic acid, methyl-, 3-methylphenyl ester (Metolcarb).	615532	Urethane.....	1*	4	U178	X	1 (0.454)
Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester (Thiophanate-methyl).	1129415	.....	1*	4	P190	.....	##
Carbamic acid, phenyl-, 1-methylethyl ester (Propham).	23564058	.....	1*	4	U409	.....	##
Carbamic chloride, dimethyl-.....	122429	.....	1*	4	U373	.....	##
Carbamodithioic acid, 1,2-ethanedithiolbis, salts & esters	79447	Dimethylcarbamoyl chloride	1*	3, 4	U097	X	1 (0.454)
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester	111546	Ethylenebisdithiocarbamic acid, salts & esters.	1*	4	U114	D	5000 (2270)
Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-trichloro-2-propenyl) ester (Triallate).	2303164	Diallate.....	1*	4	U062	B	100 (45.4)
Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester (Prosulfocarb).	2303175	.....	1*	4	U389	.....	##
Carbaryl.....	52888809	.....	1*	4	U387	.....	##
Carbofuran.....	63252	.....	100	1, 3	.....	B	100 (45.4)
Carbon disulfide.....	1563662	.....	10	1	.....	A	10 (4.54)
Carbon oxyfluoride.....	75150	.....	5000	1, 3, 4	P022	B	100 (45.4)
Carbonic acid, dithallium(1+) salt....	353504	Carbonic difluoride.....	1*	4	U033	C	1000 (454)
Carbonic dichloride.....	6533739	Thallium(I) carbonate.....	1*	4	U215	B	100 (45.4)
Carbonic difluoride.....	75445	Phosgene.....	5000	1, 3, 4	P095	A	10 (4.54)
Carbonochloridic acid, methyl ester...	353504	Carbon oxyfluoride.....	1*	4	U033	C	1000 (454)
	79221	Methyl chloroformate.....	1*	4	U156	C	1000 (454)
Carbon tetrachloride.....	56235	Methane, tetrachloro-.....	5000	1, 2, 3, 4	U211	A	10 (4.54)
Carbonyl sulfide.....	463581	.....	1*	3	.....	B	100 (45.4)
Catechol.....	120809	.....	1*	3	.....	B	100 (45.4)
Chloral.....	75876	Acetaldehyde, trichloro-..	1*	4	U034	D	5000 (2270)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Chloramben.....	133904	.....	1*	3	.....	B	100 (45.4)
Chlorambucil.....	305033	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	1*	4	U035	A	10 (4.54)
Chlordane.....	57749	Chlordane, alpha & gamma isomers. CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)..... 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-..	1	1,2,3,4	U036	X	1 (0.454)
CHLORDANE (TECHNICAL MIXTURE AND METABOLITES)	N.A.	.....	1*	2	.....	.....	**
Chlordane, alpha & gamma isomers.....	57749	Chlordane..... CHLORDANE (TECHNICAL MIXTURE AND METABOLITES). 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-..	1	1,2,3,4	U036	X	1 (0.454)
CHLORDANE (TECHNICAL MIXTURE AND METABOLITES).	57749	Chlordane, alpha & gamma isomers. Chlordane, alpha & gamma isomers. 4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-.	1	1,2,3,4	U036	X	1 (0.454)
CHLORINATED BENZENES	N.A.	.....	1*	2	.....	.....	**
Chlorinated camphene.....	8001352	Camphene, octachloro-.... Toxaphene.....	1	1,2,3,4	P123	X	1 (0.454)
CHLORINATED ETHANES	N.A.	.....	1*	2	.....	.....	**
CHLORINATED NAPHTHALENE	N.A.	.....	1*	2	.....	.....	**
CHLORINATED PHENOLS	N.A.	.....	1*	2	.....	.....	**
Chlorine.....	7782505	.....	10	1,3	.....	A	10 (4.54)
Chlornaphazine.....	494031	Naphthalenamine, N,N'-bis(2-chloroethyl)-.	1*	4	U026	B	100 (45.4)
Chloroacetaldehyde.....	107200	Acetaldehyde, chloro-....	1*	4	P023	C	1000 (454)
Chloroacetic acid.....	79118	.....	1*	3	.....	B	100 (45.4)
2-Chloroacetophenone	532274	.....	1*	3	.....	B	100 (45.4)
CHLOROALKYL ETHERS	N.A.	.....	1*	2	.....	.....	**
p-Chloroaniline.....	106478	Benzenamine, 4-chloro-....	1*	4	P024	C	1000 (454)
Chlorobenzene.....	108907	Benzene, chloro-.....	100	1,2,3,4	U037	B	100 (45.4)
Chlorobenzilate.....	510156	Benzenecetic acid, 4-chloro-<greek-a>- (4-chlorophenyl)-<greek-a>-hydroxy-, ethyl ester. p-Chloro-m-cresol..... Phenol, 4-chloro-3-methyl-	1*	3,4	U038	A	10 (4.54)
4-Chloro-m-cresol.....	59507	.....	1*	2,4	U039	D	5000 (2270)
p-Chloro-m-cresol.....	59507	Phenol, 4-chloro-3-methyl-	1*	2,4	U039	D	5000 (2270)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Chloroethane.....	75003	4-Chloro-m-cresol.....	1*	2, 3	.....	B	100 (45.4)
Chlorodibromomethane.....	124481	Ethyl chloride.....	1*	2	.....	B	100 (45.4)
1-Chloro-2,3-epoxypropane.....	106898	Epichlorohydrin.....	1000	1, 3, 4	U041	B	100 (45.4)
2-Chloroethyl vinyl ether.....	110758	Oxirane, (chloromethyl)-.....	1*	2, 4	U042	C	1000 (454)
Chloroform.....	67663	Ethene, 2-chloroethoxy-.....	5000	1, 2, 3, 4	U044	A	10 (4.54)
Chloromethane.....	74873	Methane, trichloro-.....	1*	2, 3, 4	U045	B	100 (45.4)
		Methane, chloro-.....					
		Methyl chloride.....					
Chloromethyl methyl ether.....	107302	Methane, chloromethoxy-.....	1*	3, 4	U046	A	10 (4.54)
beta-Chloronaphthalene.....	91587	Naphthalene, 2-chloro-.....	1*	2, 4	U047	D	5000 (2270)
2-Chloronaphthalene.....	91587	2-Chloronaphthalene.....	1*	2, 4	U047	D	5000 (2270)
2-Chlorophenol.....	95578	Naphthalene, 2-chloro-.....	1*	2, 4	U048	B	100 (45.4)
o-Chlorophenol.....	95578	Phenol, 2-chloro-.....	1*	2, 4	U048	B	100 (45.4)
4-Chlorophenyl phenyl ether.....	7005723	2-Chlorophenol.....	1*	2	.....	D	5000 (2270)
1-(o-Chlorophenyl)thiourea.....	5344821	Thiourea, (2-chlorophenyl)-.....	1*	4	P026	B	100 (45.4)
Chloroprene.....	126998	.....	1*	3	.....	B	100 (45.4)
3-Chloropropionitrile.....	542767	Propanenitrile, 3-chloro-.....	1*	4	P027	C	1000 (454)
Chlorosulfonic acid.....	7790945	.....	1000	1	.....	C	1000 (454)
4-Chloro-o-toluidine, hydrochloride.....	3165933	Benzenamine, 4-chloro-2-methyl-, hydrochloride.....	1*	4	U049	B	100 (45.4)
Chlorpyrifos.....	2921882	.....	1	1	.....	X	1 (0.454)
Chromic acetate.....	1066304	.....	1000	1	.....	C	1000 (454)
Chromic acid.....	11115745	.....	1000	1	.....	A	10 (4.54)
	7738945	.....					
Chromic acid H<INF>2</INF> CrO<INF>4</INF>		Chromic salt, 13765190 Calcium chromate.....	1000	1, 4	U032	A	10 (4.54)
Chromic sulfate.....	10101538	.....	1000	1	.....	C	1000 (454)
Chromium <dagger><dagger>	7440473	.....	1*	2	.....	D	5000 (2270)
CHROMIUM AND COMPOUNDS.....	N.A.	Chromium Compounds.....	1*	2, 3	.....	**	**
Chromium Compounds.....	N.A.	CHROMIUM AND COMPOUNDS.....	1*	2, 3	.....	**	**
Chromous chloride.....	10049055	.....	1000	1	.....	C	1000 (454)
Chrysene.....	218019	1,2-Benzphenanthrene.....	1*	2, 4	U050	B	100 (45.4)
Cobalt compounds.....	N.A.	.....	1*	3	.....	**	**
Cobaltous bromide.....	7789437	.....	1000	1	.....	C	1000 (454)
Cobaltous formate.....	544183	.....	1000	1	.....	C	1000 (454)
Cobaltous sulfamate.....	14017415	.....	1000	1	.....	C	1000 (454)
Coke Oven Emissions.....	N.A.	.....	1*	3	.....	X	1 (0.454)
Copper <dagger><dagger>	7440508	.....	1*	2	.....	D	5000 (2270)
COPPER AND COMPOUNDS.....	N.A.	.....	1*	2	.....	**	**
Copper cyanide.....	544923	Copper cyanide CuCN.....	1*	4	P029	A	10 (4.54)
Copper cyanide CuCN.....	544923	Copper cyanide.....	1*	4	P029	A	10 (4.54)
Coumaphos.....	56724	.....	10	1	.....	A	10 (4.54)
Creosote.....	8001589	.....	1*	4	U051	X	1 (0.454)
Cresols (isomers and mixture).....	1319773	Cresylic acid (isomers and mixture).....	1000	1, 3, 4	U052	B	100 (45.4)
		Phenol, methyl.....					
m-Cresol.....	108394	m-Cresylic acid.....	1*	3	.....	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
o-Cresol.....	95487	o-Cresylic acid.....	1*	3	.....	B	100 (45.4)
p-Cresol.....	106445	p-Cresylic acid.....	1*	3	.....	B	100 (45.4)
Cresylic acid (isomers and mixture)...	1319773	Cresols (isomers and mixture).	1000	1,3,4	U052	B	100 (45.4)
m-Cresylic acid.....	108394	Phenol, methyl.....	1*	3	.....	B	100 (45.4)
o-Cresylic acid.....	95487	m-Cresol.....	1*	3	.....	B	100 (45.4)
p-Cresylic acid.....	106445	p-Cresol.....	1*	3	.....	B	100 (45.4)
Crotonaldehyde.....	123739	2-Butenal.....	100	1,4	U053	B	100 (45.4)
4170303							
Cumene.....	98828	Benzene, (1-methylethyl)-	1*	3,4	U055	D	5000 (2270)
Cupric acetate.....	142712	.....	100	1	.....	B	100 (45.4)
Cupric acetoarsenite.....	12002038	.....	100	1	.....	X	1 (0.454)
Cupric chloride.....	7447394	.....	10	1	.....	A	10 (4.54)
Cupric nitrate.....	3251238	.....	100	1	.....	B	100 (45.4)
Cupric oxalate.....	5893663	.....	100	1	.....	B	100 (45.4)
Cupric sulfate.....	7758987	.....	10	1	.....	A	10 (4.54)
Cupric sulfate, ammoniated.....	10380297	.....	100	1	.....	B	100 (45.4)
Cupric tartrate.....	815827	.....	100	1	.....	B	100 (45.4)
Cyanide Compounds.....	N.A.	.....	1*	2,3	.....	.....	**
CYANIDES.....	N.A.	CYANIDES.....	1*	2,3	.....	.....	**
Cyanides (soluble salts and complexes) not otherwise specified	57125	Cyanide Compounds.....	1*	2,3	.....	.....	**
Cyanogen.....	460195	Ethanedinitrile.....	1*	4	P030	A	10 (4.54)
Cyanogen bromide.....	506683	Cyanogen bromide (CN)Br.....	1*	4	P031	B	100 (45.4)
Cyanogen bromide (CN)Br.....	506683	.....	1*	4	U246	C	1000 (454)
Cyanogen chloride.....	506774	Cyanogen chloride (CN)Cl.....	10	1,4	U246	C	1000 (454)
Cyanogen chloride (CN)Cl.....	506774	.....	10	1,4	P033	A	10 (4.54)
2,5-Cyclohexadiene-1,4-dione.....	106514	Cyanogen chloride.....	10	1,4	P033	A	10 (4.54)
Cyclohexane.....	110827	p-Benzoquinone.....	1*	3,4	U197	A	10 (4.54)
Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1<greek-a>,2<greek-a>,3<greek-b>,4<g r,5<greek-a>,6<greek-b>)-	58899	Quinone.....	1000	1,4	U056	C	1000 (454)
Cyclohexanone.....	108941	Benzene, hexahydro-.....	1	1,2,3,4	U129	X	1 (0.454)
2-Cyclohexyl-4,6-dinitrophenol.....	131895	<greek-g>-BHC.....	1*	4	U057	D	5000 (2270)
1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	77474	Hexachlorocyclohexane (gamma isomer).	1*	4	P034	B	100 (45.4)
Cyclophosphamide.....	50180	Lindane.....	1	1,2,3,4	U130	A	10 (4.54)
2,4-D Acid.....	94757	Lindane (all isomers).....	100	1,3,4	U058	A	10 (4.54)
2,4-D Ester.....	94111	N,N-bis(2-chloroethyl)tetrahydro-2-oxide.	100	1	.....	B	100 (45.4)
	94791	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters.	100	1	.....	B	100 (45.4)
		2,4-D, salts and esters...	100	1	.....	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
2,4-D salts and esters.....	94804 1320189 1928387 1928616 1929733 2971382 25168267 53467111 94757	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters. 2,4-D Acid..... 5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexo- pyranosyl)oxy]-7,8,9,10- tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-. Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-. TDE..... 4,4' DDD..... Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro- DDD..... TDE..... 4,4'-DDE..... DDE..... 3547044 50293	100	1,3,4	U240	B	100 (45.4)
Daunomycin.....	20830813	5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexo- pyranosyl)oxy]-7,8,9,10- tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-. Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-.	1*	4	U059	A	10 (4.54)
DDD.....	72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-.	1	1,2,4	U060	X	1 (0.454)
4,4' DDD.....	72548	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-.	1	1,2,4	U060	X	1 (0.454)
DDE.....	72559	TDE.....	1*	2,3	.....	X	1 (0.454)
4,4'-DDE.....	72559	4,4'-DDE.....	1*	2,3	.....	X	1 (0.454)
DDE <SUP>b</SUP></SUP>.....	3547044	DDE.....	1*	3	.....	D	5000 (2270)
DDT.....	50293	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- 4,4' DDT.....	1	1,2,4	U061	X	1 (0.454)
4,4' DDT.....	50293	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro- DDT.....	1	1,2,4	U061	X	1 (0.454)
DDT AND METABOLITES.....	N.A.	1,2-Benzenedicarboxylic acid, bis(2-ethyl-hexyl) ester. Bis(2-ethylhexyl)phthalate Diethylhexyl phthalate.... Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.	1* 1*	2 2,3,4	..... U028	..... B	..... 100 (45.4)
Diallate.....	2303164	Bis(2-ethylhexyl)phthalate Diethylhexyl phthalate.... Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester.	1*	4	U062	B	100 (45.4)
Diazinon.....	333415	.....	1	1	.....	X	1 (0.454)
Diazomethane.....	334883	.....	1*	3	.....	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Dibenz[a,h]anthracene.....	53703	Dibenzo[a,h]anthracene 1,2:5,6-Dibenzanthracene..	1*	2,4	U063	X	1 (0.454)
1,2:5,6-Dibenzanthracene.....	53703	Dibenz[a,h]anthracene	1*	2,4	U063	X	1 (0.454)
Dibenzo[a,h]anthracene.....	53703	Dibenzo[a,h]anthracene....	1*	2,4	U063	X	1 (0.454)
Dibenz[a,i]pyrene.....	189559	Benzo[ <i>rst</i> ]pentaphene.....	1*	4	U064	A	10 (4.54)
Dibenzofuran.....	132649	.....	1*	3	.....	B	100 (45.4)
1,2-Dibromo-3-chloropropane.....	96128	Propane, 1,2-dibromo-3- chloro-.	1*	3,4	U066	X	1 (0.454)
Dibromoethane.....	106934	Ethane, 1,2-dibromo-.....	1000	1,3,4	U067	X	1 (0.454)
Dibutyl phthalate.....	84742	Ethylene dibromide..... 1,2-Benzenedicarboxylic acid, dibutyl ester. n-Butyl phthalate..... Di-n-butyl phthalate.....	100	1,2,3,4	U069	A	10 (4.54)
Di-n-butyl phthalate.....	84742	1,2-Benzenedicarboxylic acid, dibutyl ester. n-Butyl phthalate..... Dibutyl phthalate.....	100	1,2,3,4	U069	A	10 (4.54)
Dicamba.....	1918009	.....	1000	1	.....	C	1000 (454)
Dichlobenil.....	1194656	.....	1000	1	.....	B	100 (45.4)
Dichlone.....	117806	.....	1	1	.....	X	1 (0.454)
Dichlorobenzene.....	25321226	.....	100	1	.....	B	100 (45.4)
1,2-Dichlorobenzene.....	95501	Benzene, 1,2-dichloro- o- Dichlorobenzene.	100	1,2,4	U070	B	100 (45.4)
1,3-Dichlorobenzene.....	541731	Benzene, 1,3-dichloro m- Dichlorobenzene.	1*	2,4	U071	B	100 (45.4)
1,4-Dichlorobenzene.....	106467	Benzene, 1,4-dichloro-....	100	1,2,3,4	U072	B	100 (45.4)
m-Dichlorobenzene.....	541731	p-Dichlorobenzene..... Benzene, 1,3-dichloro 1,3- Dichlorobenzene.	1*	2,4	U071	B	100 (45.4)
o-Dichlorobenzene.....	95501	Benzene, 1,2-dichloro 1,2- Dichlorobenzene.	100	1,2,4	U070	B	100 (45.4)
p-Dichlorobenzene.....	106467	Benzene, 1,4-dichloro-....	100	1,2,3,4	U072	B	100 (45.4)
DICHLOROBENZIDINE.....	N.A.	.....	1*	2	.....	.....	**
3,3'-Dichlorobenzidine.....	91941	[1,1'-Biphenyl]-4,4'- diamine, 3,3'-dichloro-.	*	2,3,4	U073	X	1 (0.454)
Dichlorobromomethane.....	75274	.....	1*	2	.....	D	5000 (2270)
1,4-Dichloro-2-butene.....	764410	2-Butene, 1,4-dichloro-....	1*	4	U074	X	1 (0.454)
Dichlorodifluoromethane.....	75718	Methane, dichlorodifluoro-	1*	4	U075	D	5000 (2270)
1,1-Dichloroethane.....	75343	Ethane, 1,1-dichloro-....	1*	2,3,4	U076	C	1000 (454)
1,2-Dichloroethane.....	107062	Ethylidene dichloride..... Ethane, 1,2-dichloro-....	5000	1,2,3,4	U077	B	100 (45.4)
1,1-Dichloroethylene.....	75354	Ethylene dichloride..... Ethene, 1,1-dichloro-....	5000	1,2,3,4	U078	B	100 (45.4)
1,2-Dichloroethylene.....	156605	Vinylidene chloride..... Ethene, 1,2-dichloro- (E).	1*	2,4	U079	C	1000 (454)
Dichloroethyl ether.....	111444	Bis(2-chloroethyl) ether.. Ethane, 1,1'-oxybis[2- chloro-.	1*	2,3,4	U025	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Dichloroisopropyl ether.....	108601	Propane, 2,2'-oxybis[2-chloro-..	1*	2,4	U027	C	1000 (454)
Dichloromethane.....	75092	Methane, dichloro-.....	1*	2,3,4	U080	C	1000 (454)
Dichloromethoxy ethane.....	111911	Methylene chloride..... Bis(2-chloroethoxy) methane Ethane, 1,1'- [methylenebis(oxy)]bis(2-chloro-..	1*	2,4	U024	C	1000 (454)
Dichloromethyl ether.....	542881	Bis(chloromethyl) ether... Methane, oxybis(chloro-...	1*	3,4	P016	A	10 (4.54)
2,4-Dichlorophenol.....	120832	Phenol, 2,4-dichloro-.....	1*	2,4	U081	B	100 (45.4)
2,6-Dichlorophenol.....	87650	Phenol, 2,6-dichloro-.....	1*	4	U082	B	100(45.4)
Dichlorophenylarsine.....	696286	Arsonous dichloride, phenyl-..	1*	4	P036	X	1 (0.454)
Dichloropropane.....	26638197	.....	5000	1	.....	C	1000 (454)
1,1-Dichloropropane.....	78999	.....					
1,3-Dichloropropane.....	142289	.....					
1,2-Dichloropropane.....	78875	Propane, 1,2-dichloro-..... Propylene dichloride.....	5000	1,2,3,4,	U083	C	1000 (454)
Dichloropropane--Dichloropropene (mixture)	8003198	.....	5000	1	.....	B	100 (45.4)
Dichloropropene.....	26952238	.....	5000	1	.....	B	100 (45.4)
2,3-Dichloropropene.....	78886	.....					
1,3-Dichloropropene.....	542756	1-Propene, 1,3-dichloro-...	5000	1,2,3,4	U084	B	100 (45.4)
2,2-Dichloropropionic acid.....	75990	.....	5000	1	.....	D	5000 (2270)
Dichlorvos.....	62737	.....	10	1,3	.....	A	10 (4.54)
Dicofol.....	115322	.....	5000	1	.....	A	10 (4.54)
Dieldrin.....	60571	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,eta,6beta,6aalpha,7beta,7aalpha)-..	1	1,2,4	P037	X	1 (0.454)
1,2:3,4-Diepoxybutane.....	1464535	2,2'-Bioxirane.....	1*	4	U085	A	10 (4.54)
Diethanolamine.....	111422	.....	1*	3	.....	B	100 (45.4)
Diethylamine.....	109897	.....	1000	1	.....	B	100 (454.4)
N,N-Diethylaniline.....	91667	.....	1*	3	.....	C	1000 (454)
Diethylarsine.....	692422	Arsine, diethyl-.....	1*	4	P038	X	1 (0.454)
1,4-Diethylenedioxide.....	123911	1,4-Dioxane..... 1,4-Diethylenedioxide.....	1*	3,4	U108	B	100 (45.4)
1,4-Diethylenoxide.....	123911	1,4-Dioxane..... 1,4-Diethylenedioxide.....	1*	3,4	U108	B	100 (45.4)
Diethylhexyl phthalate.....	117817	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester. Bis(2-ethylhexyl)phthalate DEHP.	1*	2,3,4	U028	B	100 (45.4)
N,N'-Diethylhydrazine.....	1615801	Hydrazine, 1,2-diethyl-...	1*	4	U086	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
O, O-Diethyl S-methyl dithiophosphate..	3288582	Phosphorodithioic acid, O, O-diethyl S-methyl ester.	1*	4	U087	D	5000 (2270)
Diethyl-p-nitrophenyl phosphate.....	311455	Phosphoric acid, diethyl 4-nitrophenyl ester.	1*	4	P041	B	100 (45.4)
Diethyl phthalate.....	84662	1,2-Benzenedicarboxylic acid, diethyl ester.	1*	2,4	U088	C	1000 (454)
O, O-Diethyl O-pyrazinyl phosphorothioate.	297972	Phosphorothioic acid, O, O-diethyl O-pyrazinyl ester.	1*	4	P040	B	100 (45.4)
Diethylstilbestrol.....	56531	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E).	1*	4	U089	X	1 (0.454)
Diethyl sulfate.....	64675	.....	1*	3	.....	A	10 (4.54)
Dihydrosafrole.....	94586	1,3-Benzodioxole, 5-propyl-	1*	4	U090	A	10 (4.54)
Diisopropylfluorophosphate.....	55914	Phosphorofluoric acid, bis(1-methylethyl) ester.	1*	4	P043	B	100 (45.4)
1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8a-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-1,4,5,8-Dimethanonaphthalene,	309002	Aldrin.....	1	1,2,4	P004	X	1 (0.454)
1,2,3,4,10,10-hexachloro-1,4,4a,5,8a-hexahydro-, (1alpha,4alpha,4abeta,5abeta,8abeta)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-2,7:3,6-Dimethanonaphth[2,3-b]oxirene,	465736	Isodrin.....	1*	4	P060	X	1 (0.454)
3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octa-hydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-Dimethoate.....	60571	Dieldrin.....	1	1,2,4	P037	X	1 (0.454)
	72208	Endrin Endrin, & metabolites...	1	1,2,4	P051	X	1 (0.454)
	60515	Phosphorodithioic acid, O, O-dimethyl S-[2(methylamino))-2-oxoethyl] ester.	1*	4	P044	A	10 (4.54)
3, 3'-Dimethoxybenzidine.....	119904	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-.....	1*	3,4	U091	B	100 (45.4)
Dimethylamine.....	124403	Methanamine, N-methyl-....	1000	1,4	U092	C	1000 (454)
Dimethyl aminoazobenzene.....	60117	Benzenamine, N,N-dimethyl-4-(phenylazo)-.	1*	3,4	U093	A	10 (4.54)
p-Dimethylaminoazobenzene.....	60117	P-Dimethylaminoazobenzene. Benzenamine, N,N-dimethyl-4-(phenylazo)-.	1*	3,4	U093	A	10 (4.54)
N,N-Dimethylaniline.....	121697	Dimethyl aminoazobenzene...	1*	3	.....	B	100 (45.4)
7, 12-Dimethylbenz[a]anthracene.....	57976	Benz[alanthracene, 7, 12-dimethyl-.	1*	4	U094	X	1 (0.454)
3, 3'-Dimethylbenzidine.....	119937	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-.	1*	3,4	U095	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
alpha, alpha-Dimethylbenzylhydroperoxide.	80159	Hydroperoxide, 1-methyl-1-phenylethyl-.	1*	4	U096	A	10 (4.54)
Dimethylcarbamoyl chloride.....	79447	Carbamic chloride, dimethyl-.	1*	3, 4	U097	X	1 (0.454)
Dimethylformamide.....	68122	.....	1*	3	.....	B	100 (45.4)
1,1-Dimethylhydrazine.....	57147	Hydrazine, 1,1-dimethyl-.	1*	3, 4	U098	A	10 (4.54)
1,2-Dimethylhydrazine.....	540738	Hydrazine, 1,2-dimethyl-.	1*	4	U099	X	1 (0.454)
alpha, alpha-Dimethylphenethylamine....	122098	Benzeneethanamine, alpha, alpha-dimethyl-.	1*	4	P046	D	5000 (2270)
2, 4-Dimethylphenol.....	105679	Phenol, 2,4-dimethyl-.	1*	2, 4	U101	B	100 (45.4)
Dimethyl phthalate.....	131113	1,2-Benzenedicarboxylic acid, dimethyl ester.	1*	2, 3, 4	U102	D	5000 (2270)
Dimethyl sulfate.....	77781	Sulfuric acid, dimethyl ester.	1*	3, 4	U103	B	100 (45.4)
Dinitrobenzene (mixed)	25154545	.....	1000	1	.....	B	100 (45.4)
m-Dinitrobenzene.....	99650	.....	1000	1	.....	B	100 (45.4)
o-Dinitrobenzene.....	528290	.....	1000	1	.....	B	100 (45.4)
p-Dinitrobenzene.....	100254	.....	1000	1	.....	B	100 (45.4)
4,6-Dinitro-o-cresol, and salts.....	534521	.....	1000	1	.....	B	100 (45.4)
Dinitrophenol.....	25550587	.....	1000	1	.....	A	10 (4.54)
2,5-Dinitrophenol.....	329715	.....	1000	1, 2, 3, 4,	P048	A	10 (4.54)
2,6-Dinitrophenol.....	573568	.....	1000	1, 2	.....	A	10 (4.54)
2,4-Dinitrophenol.....	51285	.....	1000	1, 2	.....	A	10 (4.54)
Dinitrotoluene.....	25321146	.....	1000	1, 2, 3, 4	U105	A	10 (4.54)
3,4-Dinitrotoluene.....	610399	.....	1000	1, 2, 3, 4	U106	B	100 (45.4)
2,4-Dinitrotoluene.....	121142	.....	1000	1, 2, 3, 4	U107	C	1000 (454)
2,6-Dinitrotoluene.....	606202	.....	1000	1, 2, 3, 4	U108	D	5000 (2270)
Dinoseb.....	88857	.....	1*	4	P020	C	1000 (454)
Di-n-octyl phthalate.....	117840	.....	1*	2, 4	U107	D	5000 (2270)
1,4-Dioxane.....	123911	.....	1*	3, 4	U108	B	100 (45.4)
DIPHENYLHYDRAZINE.....	N.A.	.....	1*	2	.....	***	10 (4.54)
1,2-Diphenyl-.....	122667	.....	1*	2, 3, 4	U109	A	100 (45.4)
hydrazine.....	152169	.....	1*	4	P085	B	100 (45.4)
Diphosphoramide, octamethyl-.....	107493	.....	100	1, 4	P111	A	10 (4.54)
Diphosphoric acid, tetraethyl ester...	142847	.....	1*	4	U110	D	5000 (2270)
Dipropylamine.....	621647	.....	1*	2, 4	U111	A	10 (4.54)
Di-n-propylnitrosamine.....	85007	.....	1000	1	.....	C	1000 (454)
Diquat.....	2764729	.....	1000	1	P039	X	1 (0.454)
Disulfoton.....	298044	.....	1	1, 4	P039	X	1 (0.454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Dithiobiuret.....	541537	(ethylthio)ethyl]ester. Thioimidodicarbonic diamide [(HG2RN) C(S)]2NH.....	1*	4	P049	B	100 (45.4)
1,3-Dithiolane-2-carboxaldehyde, 2,4- dimethyl-, O- [(methylamino)carbonyl]oxime (Tirpate).	26419738	.....	1*	4	P185	.....	##
Diuron.....	330541	.....	100	1	.....	B	100 (45.4)
Dodecylbenzenesulfonic acid.....	27176870	.....	1000	1	.....	C	1000 (454)
Endosulfan.....	115297	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a- hexahydro- , 3-oxide.	1	1,2,4	P050	X	1 (0.454)
alpha - Endosulfan.....	959988	.....	1*	2	.....	X	1 (0.454)
beta - Endosulfan.....	33213659	.....	1*	2	.....	X	1 (0.454)
ENDOSULFAN AND METABOLITES.....	N.A.	.....	1*	2	.....	.....	**
Endosulfan sulfate.....	1031078	.....	1*	2	.....	X	1 (0.454)
Endothall.....	145733	7-Oxabicyclo[2.2.1]heptane- 2,3-dicarboxylic acid. Endrin, & metabolites	1*	4	P088	C	1000 (454)
Endrin.....	72208	2,7:3,6- Dimethanonaphth[2,3- b]oxirene, 3,4,5,6,9,9 - hexachloro-1a,2,2a,3,. 6,6a,7,7a-octa-hydro-, (1aalpha),. 2beta,2abeta,3alpha,6alp ha,. 6abeta,7beta, 7aalpha)-.	1	1,2,4	P051	X	1 (0.454)
Endrin aldehyde.....	7421934	.....	1*	2	.....	X	1 (0.454)
ENDRIN AND METABOLITES.....	N.A.	.....	1*	2	.....	.....	**
Endrin, & metabolites.....	72208	Endrin 2,7:3,6- Dimethanonaphth[2,3- b]oxirene,. 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,. 6,6a,7,7a-octa-hydro-, (1aalpha),. 2beta,2abeta,3alpha,6alp ha,. 6abeta,7beta, 7aalpha)-. 1-Chloro-2,3-epoxypropane. Oxirane, (chloromethyl)-. 1,2-Benzenediol,4-[1- hydroxy-2- (methylamino)ethyl]-.	1	1,2,4	P051	X	1 (0.454)
Epichlorohydrin.....	106898	.....	1000	1,3,4	U041	B	100(45.4)
Epinephrine.....	51434	.....	1*	4	P042	C	1000 (454)
1,2-Epoxybutane.....	106887	.....	1*	3	.....	B	100 (45.4)
Ethanal.....	75070	Acetaldehyde.....	1000	1,3,4	U001	C	1000(454)
Ethanolamine, N-ethyl-N-nitroso-.....	55185	N-Nitrosodiethylamine.....	1*	4	U174	X	1 (0.454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl) -	91805	Methapyrilene.....	1*	4	U155	D	5000 (2270)
Ethane, 1,2-dibromo.....	106934	Dibromoethane.....	1000	1,3,4	U067	X	1 (0.454)
Ethane, 1,1-dichloro.....	75343	Ethylene dibromide..... 1,1-Dichloroethane.....	1*	2,3,4	U076	C	1000 (454)
Ethane, 1,2-dichloro.....	107062	Ethylidene dichloride..... 1,2-Dichloroethane.....	5000	1,2,3,4	U077	B	100 (45.4)
Ethanedinitrile.....	460195	Ethylene dichloride.....	1*	4	P031	B	100 (45.4)
Ethane, hexachloro.....	67721	Cyanogen.....	1*	2,3,4	U131	B	100 (45.4)
Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-.....	111911	Hexachloroethane..... Bis(2-chloroethoxy) methane.	1*	2,4	U024	C	1000 (454)
Ethane, 1,1'-oxybis.....	60297	Dichloromethoxy ethane.....	1*	4	U117	B	100 (45.4)
Ethane, 1,1'-oxybis[2-chloro-.....	111444	Ethyl ether..... Bis(2-chloroethyl) ether..	1*	2,3,4	U025	A	10 (4.54)
Ethane, pentachloro-.....	76017	Dichloroethyl ether.....	1*	4	U184	A	10 (4.54)
Ethane, 1,1,1,2-tetrachloro-.....	630206	Pentachloroethane.....	1*	4	U208	B	100 (45.4)
Ethane, 1,1,2,2-tetrachloro-.....	79345	1,1,1,2-Tetrachloroethane. 1,1,2,2-Tetra-.....	1*	2,3,4	U209	B	100 (45.4)
Ethanethioamide.....	62555	chloroethane.....	1*	4	U218	A	10 (4.54)
Ethane, 1,1,1-trichloro-.....	71556	Thioacetamide.....	1*	2,3,4	U226	C	1000 (454)
Ethane, 1,1,2-trichloro-.....	79005	Methyl chloroform..... 1,1,1-Trichloroethane.....	1*	2,3,4	U227	B	100 (45.4)
Ethanimidothioci acid, 2-methyl ester (A2213).	30558431	1,1,2-Trichloroethane.....	1*	4	U394	..	##
Ethanimidothioic acid, 2-(dimethylamino)-N-[[ (methylanino)carbonyl]oxy]-2-oxo-, methyl ester (Oxamyl).	23135220	.....	1*	4	P194	..	##
Ethanimidothioic acid, N-[[ (methylamino)carbonyl]oxy]-, methyl ester (Oxamyl).	16752775	Methomyl.....	1*	4	P066	B	100 (45.4)
Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-s-,dimethyl ester (Thiodicarb).	59669260	.....	1*	4	U410	..	##
Ethanol, 2-ethoxy-.....	110805	Ethylene glycol monoethyl ether.	1*	4	U359	C	1000 (454)
Ethanol, 2,2'-(nitrosoimino)bis-.....	1116547	N-Nitrosodiethanolamine...	1*	4	U173	X	1 (0.454)
Ethanol, 2,2'-oxybis-, dicarbamate (Diethylene glycol, dicarbamate).	5952261	.....	1*	4	U395	..	##
Ethanone, 1-phenyl-.....	98862	Acetophenone.....	1*	3,4	U004	D	5000 (2270)
Ethene, chloro-.....	75014	Vinyl chloride.....	1*	2,3,4	U043	X	1 (0.454)
Ethene, 2-chloroethoxy-.....	110758	2-Chloroethyl vinyl ether.	1*	2,4	U042	C	1000 (454)
Ethene, 1,1-dichloro-.....	75354	1,1-Dichloroethylene..... Vinylidene chloride.....	5000	1,2,3,4	U078	B	100 (45.4)
Ethene, 1,2-dichloro- (E).....	156605	1,2-Dichloroethylene.....	1*	2,4	U079	C	1000 (454)
Ethene, tetrachloro-.....	127184	Perchloroethylene..... Tetrachloroethene.....	1*	2,3,4	U210	B	100 (45.4)
Ethene, trichloro-.....	79016	Tetrachloroethylene..... Trichloroethene.....	1000	1,2,3,4	U228	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Ethion.....	563122	.....	10	1	.....	A	10 (4.54)
Ethyl acetate.....	141786	Acetic acid, ethyl ester..	1*	4	U112	D	5000 (2270)
Ethyl acrylate.....	140885	2-Propenoic acid, ethyl ester.	1*	3,4	U113	C	1000 (454)
Ethylbenzene.....	100414	.....	1000	1,2,3	.....	C	1000 (454)
Ethyl carbamate.....	51796	Carbamic acid, ethyl ester Urethane.....	1*	3,4	U238	B	100 (45.4)
Ethyl chloride.....	75003	Chloroethane.....	1*	2,3	.....	B	100 (45.4)
Ethyl cyanide.....	107120	Propanenitrile.....	1*	4	P101	A	10 (4.54)
Ethylenebisdithiocarbamic acid, salts & esters	111546	Carbamodithioic acid, 1,2-ethanediyldis, salts & esters.	1*	4	U114	D	5000 (2270)
Ethylenediamine.....	107153	.....	1000	1	.....	D	5000 (2270)
Ethylenediamine-tetraacetic acid (EDTA).	60004	.....	5000	1	.....	D	5000 (2270)
Ethylene dibromide.....	106934	Dibromoethane.....	1000	1,3,4	U067	X	1 (0.454)
Ethylene dichloride.....	107062	Ethane, 1,2-dibromo-..... Ethane, 1,2-dichloro-.....	5000	1,2,3,4	U077	B	100 (45.4)
Ethylene glycol.....	107211	.....	1*	3	.....	D	5000 (2270)
Ethylene glycol monoethyl ether.....	110805	Ethanol, 2-ethoxy-.....	1*	4	U359	C	1000 (454)
Ethyleneimine.....	151564	Aziridine.....	1*	3,4	P054	X	1 (0.454)
Ethylene oxide.....	75218	Oxirane.....	1*	3,4	U115	A	10 (4.54)
Ethylenethiourea.....	96457	2-Imidazolidinethione.....	1*	3,4	U116	A	10 (4.54)
Ethyl ether.....	60297	Ethane, 1,1'-oxybis-.....	1*	4	U117	B	100 (45.4)
Ethylidene dichloride.....	75343	1,1-Dichloroethane.....	*	2,3,4	U076	C	1000 (454)
Ethyl methacrylate.....	97632	Ethane, 1,1-dichloro-..... 2-Propenoic acid, 2-methyl-, ethyl ester.	1*	4	U118	C	1000 (454)
Ethyl methanesulfonate.....	62500	Methanesulfonic acid, ethyl ester.	1*	4	U119	X	1 (0.454)
Famphur.....	52857	Phosphorothioic acid, O,[4-[(di- methylamino) sulfonyl] phenyl] O,O-dimethyl ester.	1*	4	P097	C	1000 (454)
Ferric ammonium citrate.....	1185575	.....	1000	1	.....	C	1000 (454)
Ferric ammonium oxalate.....	2944674	.....	1000	1	.....	C	1000 (454)
Ferric chloride.....	55488874	.....	1000	1	.....	C	1000 (454)
Ferric fluoride.....	7705080	.....	1000	1	.....	C	1000 (454)
Ferric nitrate.....	7783508	.....	100	1	.....	B	100 (45.4)
Ferric sulfate.....	10421484	.....	1000	1	.....	C	1000 (454)
Ferrous ammonium sulfate.....	10028225	.....	1000	1	.....	C	1000 (454)
Ferrous ammonium sulfate.....	10045893	.....	1000	1	.....	C	1000 (454)
Ferrous chloride.....	7758943	.....	1000	1	.....	B	100 (45.4)
Ferrous sulfate.....	7720787	.....	1000	1	.....	C	1000 (454)
Fine mineral fibers <SUP>c</SUP>	7782630	.....	1*	3	.....	***	***
Fluoranthene.....	N.A.	Benzo[j,k]fluorene.....	1*	2,4	U120	B	100 (45.4)
Fluorene.....	206440	.....	1*	2	.....	D	5000 (2270)
Fluorine.....	86737	.....	1*	4	P056	A	10 (4.54)
Fluoroacetamide.....	7782414	.....	1*	4	P057	B	100 (45.4)
Fluoroacetic acid, sodium salt.....	640197	Acetamide, 2-fluoro-.....	1*	4	P058	A	10 (4.54)
	62748	Acetic acid, fluoro-,	1*	4			

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Formaldehyde.....	50000	sodium salt.	1000	1,3,4	U122	B	100 (45.4)
Formic acid.....	64186	.....	5000	1,4	U123	D	5000 (2270)
Fulminic acid, mercury(2+)salt.....	628864	Mercury fulminate.....	1*	4	P065	A	10 (4.54)
Fumaric acid.....	110178	.....	5000	1	.....	D	5000 (2270)
Furan.....	110009	Furfuran.....	1*	4	U124	B	100 (45.4)
Furan, tetrahydro-.....	109999	Tetrahydrofuran.....	1*	4	U213	C	1000 (454)
2-Furancarboxaldehyde.....	98011	Furfural.....	1000	1,4	U125	D	5000 (2270)
2,5-Furandione.....	108316	Maleic anhydride.....	5000	1,3,4	U147	D	5000 (2270)
Furfural.....	98011	2-Furancarboxaldehyde.....	1000	1,4	U125	D	5000 (2270)
Furfuran.....	110009	Furan.....	1*	4	U124	B	100 (45.4)
Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoareido)-	18883664	D-Glucose, 2-deoxy-2-[[ (methylnitrosoamino) carbonyl]amino] Streptozotocin.	1*	4	U206	X	1 (0.454)
D-Glucose, 2-deoxy-2-[[ (methylnitrosoamino) carbonyl]amino]-.	18883664	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoareido)-.	1*	4	U206	X	1 (0.454)
Glycidylaldehyde.....	765344	Streptozotocin.....	1*	4	U126	A	10 (4.54)
Glycol ethers <SUP>d</SUP></SUP>.....	N.A.	Oxiranecarboxyaldehyde....	1*	3	.....	..	**
Guanidine, N-methyl-N'-nitro-N-nitroso-	70257	MNNG.....	1*	4	U163	A	10 (4.54)
Guthion.....	86500	.....	1	1	.....	X	1 (0.454)
HALOETHERS.....	N.A.	.....	1*	2	.....	..	**
HALOMETHANES.....	N.A.	.....	1*	2	.....	..	**
Heptachlor.....	76448	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-. heptachloro-3a,4,7,7a-tetrahydro-.	1	1,2,3,4	P059	X	1, (0.454)
HEPTACHLOR AND METABOLITES.....	N.A.	.....	1*	2	.....	..	**
Heptachlor epoxide.....	1024573	.....	1*	2	.....	X	1 (0.454)
Hexachlorobenzene.....	118741	Benzene, hexachloro-.....	1*	2,3,4	U127	A	10 (4.54)
Hexachlorobutadiene.....	87683	1,3-Butadiene 1,1,2,3,4,4-hexachloro-.	1*	2,3,4	U128	X	1 (0.454)
HEXACHLOROCYCLOHEXANE (all isomers)...	608731	.....	1*	2	.....	..	**
Hexachlorocyclohexane (gamma isomer)...	58899	<greek-g>-BHC.....	1	1,2,3,4	U129	X	1 (0.454)
Hexachlorocyclopentadiene.....	77474	Cyclohexane, 1,2,3,4,5,6-hexachloro-.	1	1,2,3,4	U130	A	10 (4.54)
Hexachloroethane.....	67721	1,2,3,4,5,5-hexachloro-.	1*	2,3,4	U131	B	100 (45.4)
Hexachlorophene.....	70304	Ethane, hexachloro-.....	1*	4	U132	B	100 (45.4)
Hexachloropropene.....	1888717	Phenol, 2,2'-methylenebis[3,4,6-trichloro-.	1*	4	U243	C	1000 (454)
Hexaethyl tetraphosphate.....	757584	1-Propene, 1,1,2,3,3-hexachloro-.	1*	4	P062	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Hexamethylene-1,6-diisocyanate.....	822060	hexaethyl ester.	1*	3	.....	B	100 (45.4)
Hexamethylphosphoramide.....	680319	.....	1*	3	.....	X	1 (0.454)
Hexane.....	110543	.....	1*	3	.....	D	5000 (2270)
Hexone.....	108101	Methyl isobutyl ketone....	1<SUP>*</SUP>	</SUP> , 4	U161	D	5000 (2270)
Hydrazine.....	302012	4-Methyl-2-pentanone.....	1<SUP>*</SUP>	</SUP> 3,4	U133	X	1 (0.454)
Hydrazine, 1,2-diethyl-.....	1615801	N,N'-Diethylhydrazine.....	1*	4	U086	A	10 (4.54)
Hydrazine, 1,1-dimethyl-.....	57147	1,1-Dimethylhydrazine.....	1<SUP>*</SUP>	</SUP> 3,4	U098	A	10 (4.54)
Hydrazine, 1,2-dimethyl-.....	540738	1,2-Dimethylhydrazine.....	1*	4	U099	X	1 (0.454)
Hydrazine, 1,2-diphenyl-.....	122667	1,2-Diphenylhydrazine.....	1<SUP>*</SUP>	</SUP> 2,3,4	U109	A	10 (4.54)
Hydrazine, methyl-.....	60344	Methyl hydrazine.....	1<SUP>*</SUP>	</SUP> 3,4	P068	A	10 (4.54)
Hydrazinecarbothioamide.....	79196	Thiosemicarbazide.....	1*	4	P116	B	100 (45.4)
Hydrochloric acid.....	7647010	Hydrogen chloride.....	5000	1,3	.....	D	5000 (2270)
Hydrocyanic acid.....	74908	Hydrogen cyanide.....	10	1,4	P063	A	10 (4.54)
Hydrofluoric acid.....	7664393	Hydrogen fluoride.....	5000	1,3,4	U134	B	100 (45.4)
Hydrogen chloride.....	7647010	Hydrochloric acid.....	5000	1,3	.....	D	5000 (2270)
Hydrogen cyanide.....	74908	Hydrocyanic acid.....	10	1,4	P063	A	10 (4.54)
Hydrogen fluoride.....	7664393	Hydrofluoric acid.....	5000	1,3,4	U134	B	100 (45.4)
Hydrogen phosphide.....	7803512	Phosphine.....	1<SUP>*</SUP>	</SUP> 3,4	P096	B	100 (45.4)
Hydrogen sulfide.....	7783064	Hydrogen sulfide H<INF>2</INF></INF> S.....	100	1,4	U135	B	100 (45.4)
Hydroperoxide, 1-methyl-1-phenylethyl-	80159	7783064 Hydrogen sulfide..	100	1,4	U135	B	100 (45.4)
Hydroquinone.....	123319	alpha, alpha-Dimethylbenzylhydroperoxide.	1*	4	U096	A	10 (4.54)
2-Imidazolidinethione.....	96457	.....	1*	3	.....	B	100 (45.4)
Indeno(1,2,3-cd)pyrene.....	193395	Ethylenethiourea.....	1<SUP>*</SUP>	</SUP> 3,4	U116	A	10 (4.54)
Iodomethane.....	74884	1,10-(1,2-Phenylene)pyrene	1*	2,4	U137	B	100 (45.4)
1,3-Isobenzofurandione.....	85449	Methane, iodo-.....	1<SUP>*</SUP>	</SUP> 3,4	U138	B	100 (45.4)
Isobutyl alcohol.....	78831	Methyl iodide.....	1<SUP>*</SUP>	</SUP> 3,4	U190	D	5000 (2270)
Isodrin.....	465736	Phthalic anhydride.....	1*	4	U140	D	5000 (2270)
Isophorone.....	78591	1-Propanol, 2-methyl-.....	1*	4	P060	X	1 (0.454)
Isoprene.....	78795	Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-	1<SUP>*</SUP>	</SUP> 2,3	.....	D	5000 (2270)
Isopropanolamine	42504461	1,4,4a,5,8,8a-hexahydro, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-	1000	1	.....	B	100 (45.4)
dodecylbenzenesulfonate		.....	1000	1	.....	C	1000 (454)
Isosafrole.....	120581	.....	1*	4	U141	B	100 (45.4)
3(2H)-Isoxazolone, 5-(aminomethyl)-...	2763964	1,3-Benzodioxole, 5-yl-1-propenyl)-.	1*	4	P007	C	1000 (454)
Kepon.....	143500	Muscimol.....	1*	4	.....	X	1 (0.454)
Lasiocarpine.....	303344	5-(Aminomethyl)-3-isoxazolol.	1	1,4	U142	A	10 (4.54)
		1,3,4-Metheno-2H-cyclobutal[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-.	1*	4	U143	A	10 (4.54)
		2-Butenoic acid, 2-methyl-	1*	4	.....	A	10 (4.54)



Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Maleic acid.....	110167	.....	5000	1	.....	D	5000 (2270)
Maleic anhydride.....	108316	2,5-Furandione.....	5000	1,3,4	U147	D	5000 (2270)
Maleic hydrazide.....	123331	3,6-Pyridazinedione, 1,2-dihydro-.	1*	4	U148	D	5000 (2270)
Malononitrile.....	109773	Propanedinitrile.....	1*	4	U149	C	1000 (454)
Manganese, bis(dimethylcarbamodithioato-S,S')-(Manganese dimethylthiocarbamate).	15339363	.....	1*	4	P196	..	##
Manganese Compounds.....	N.A.	.....	1*	3	.....	..	**
MDI.....	101688	Methylene diphenyl diisocyanate.	1*	3	.....	D	5000 (2270)
Melphalan.....	148823	L-Phenylalanine, 4-[bis(2-chloroethyl) aminol].	1*	4	U150	X	1 (0.454)
MEK.....	78933	2-Butanone.....	1*	3,4	U159	D	5000 (2270)
Mercaptodimethur.....	2032657	Methyl ethyl ketone.....	100	1	.....	A	10 (4.54)
Mercuric cyanide.....	592041	.....	1	1	.....	X	1 (0.454)
Mercuric nitrate.....	10045940	.....	10	1	.....	A	10 (4.54)
Mercuric sulfate.....	7783359	.....	10	1	.....	A	10 (4.54)
Mercuric thiocyanate.....	592858	.....	10	1	.....	A	10 (4.54)
Mercurous nitrate.....	10415755	.....	10	1	.....	A	10 (4.54)
Mercury.....	7782867	.....	1*	2,3,4	U151	X	1 (0.454)
MERCURY AND COMPOUNDS.....	N.A.	Mercury Compounds.....	1*	2,3	.....	..	**
Mercury Compounds.....	N.A.	MERCURY AND COMPOUNDS.....	1*	2,3	.....	..	**
Mercury, (acetate-O)phenyl-.....	62384	Phenylmercury acetate.....	1*	4	P092	B	100 (45.4)
Mercury fulminate.....	628864	Fulminic acid, mercury(2+) salt.	1*	4	P065	A	10 (4.54)
Methacrylonitrile.....	126987	2-Propenenitrile, 2-methyl-.	1*	4	U152	C	1000 (454)
Methanamine, N-methyl-.....	124403	Dimethylamine.....	1000	1,4	U092	C	1000 (454)
Methanamine, N-methyl-N-nitroso-.....	62759	N-Nitrosodimethylamine....	1*	2,3,4	P082	A	10 (4.54)
Methane, bromo-.....	74839	Bromomethane.....	1*	2,3,4	U029	C	1000 (454)
Methane, chloro-.....	74873	Methyl bromide.....	1*	2,3,4	U045	B	100 (45.4)
Methane, chloromethoxy-.....	107302	Chloromethane.....	1*	3,4	U046	A	10 (4.54)
Methane, dibromo-.....	74953	Chloromethyl methyl ether.	1*	4	U068	C	1000 (454)
Methane, dichloro-.....	75092	Methylene bromide.....	1*	2,3,4	U080	C	1000 (454)
Methane, dichlorodifluoro-.....	75718	Dichloromethane.....	1*	4	U075	D	5000 (2270)
Methane, iodo-.....	74884	Dichlorodifluoromethane....	1*	3,4	U138	B	100 (45.4)
Methane, isocyanato-.....	624839	Iodomethane.....	1*	3,4	P064	A	10 (4.54)
Methane, oxybis(chloro-.....	542881	Methyl iodide.....	1*	3,4	P016	A	10 (4.54)
Methanesulfonyl chloride, trichloro-..	594423	Bis(chloromethyl)ether....	1*	4	P118	B	100 (45.4)
Methanesulfonic acid, ethyl ester.....	62500	Dichloromethyl ether.....	1*	4	U119	X	1 (0.454)
Methane, tetrachloro-.....	56235	Trichloromethanesulfonyl chloride.	5000	1,2,3,4	U211	A	10 (4.54)
Methane, tetranitro-.....	509148	Ethyl methanesulfonate....	1*	4	P112	A	10 (4.54)
Methane, tribromo-.....	75252	Carbon tetrachloride.....	1*	2,3,4	U225	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Methane, trichloro-.....	67663	Chloroform.....	5000	1,2,3,4	U044	A	10 (4.54)
Methane, trichlorofluoro-.....	75694	Trichloromonofluoromethane	1*	4	U121	D	5000 (2270)
Methanethiol.....	74931	Methylmercaptan.....	100	1,4	U153	B	100 (45.4)
Methanimidamide, N,N-dimethyl-N'-[3-[[[(methylanino)carbonyl]oxy]phenyl]-, monohydrochloride (Formetanate hydrochloride).	23422539	Thiomethanol.....	1*	4	P198	.....	##
Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[[(methylanino)carbonyl]oxy]phenyl]-[[[(methylanino)carbonyl]oxy]phenyl]- (Formparanate).	17702577	.....	1*	4	P197	.....	##
6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	115297	Endosulfan.....	1	1,2,4	P050	X	1 (0.454)
1,3,4-Metheno-2H-cyclobutal[cd]pentalen-2-one, 1,1a,3,3a,4,5,5a,5b,6-decachlorotetrahydro-	143500	Kepone.....	1	1,4	U142	X	1 (0.454)
4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	76448	Heptachlor.....	1*	1,2,3,4	P059	X	1 (0.454)
4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	57749	Chlordane.....	1	1,2,3,4	U036	X	1 (0.454)
Methanol.....	67561	Chlordane, alpha & gamma isomers.	1*	3,4	U154	D	5000 (2270)
Methapyrilene.....	91805	CHLORDANE (TECHNICAL MIXTURE AND METABOLITES).	1*	4	U155	D	5000 (2270)
Methomyl.....	16752775	Methyl alcohol.....	1*	4	P066	B	100 (45.4)
Methoxychlor.....	72435	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-. N'-(2-thienylmethyl)-. Ethanimidothioic acid, N-[[[(methyl-amino)carbonyl]oxy]-, methyl ester.	1	1,3,4	U247	X	1 (0.454)
Methyl alcohol.....	67561	trichloroethyl-. idene)bis[4-.....	1*	3,4	U154	D	5000 (2270)
2-Methyl aziridine.....	75558	methoxy-.....	1*	3,4	P067	X	1 (0.454)
Methyl bromide.....	74839	Methanol.....	1*	2,3,4	U029	C	1000 (454)
1-Methylbutadiene.....	504609	Aziridine, 2-methyl-.....	1*	4	U186	B	100 (45.4)
Methyl chloride.....	74873	1,2-Propylenimine.....	1*	2,3,4	U045	B	100 (45.4)
Methyl chlorocarbonate.....	79221	Bromomethane.....	1*	4	U156	C	1000 (454)
Methyl chloroform.....	71556	Methane, bromo-.....	1*	2,3,4	U226	C	1000 (454)
Methyl chloroformate.....	79221	1,3-Pentadiene.....	1*	4	U156	C	1000 (454)
		Chloromethane.....	1*	4	U156	C	1000 (454)
		Methane, chloro-.....	1*	4	U156	C	1000 (454)
		Carbonochloridic acid, methyl ester.	1*	4	U156	C	1000 (454)
		Methyl chloroformate.....	1*	4	U156	C	1000 (454)
		Ethane, 1,1,1-trichloro-1,1,1-Trichloroethane.....	1*	4	U156	C	1000 (454)
		Carbonochloridic acid,	1*	4	U156	C	1000 (454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
3-Methylcholanthrene.....	56495	methyl ester. Methyl chlorocarbonate..... Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-.	1*	4	U157	A	10 (4.54)
4,4'-Methylenebis(2-chloroaniline)....	101144	Benzenamine, 4,4'-methylene-bis(2-chloro-.	1*	3,4	U158	A	10 (4.54)
Methylene bromide.....	74953	Methane, dibromo-.....	1*	4	U068	C	1000 (454)
Methylene chloride.....	75092	Dichloromethane.....	1*	2,3,4	U080	C	1000 (454)
4,4'-Methylenedianiline.....	101779	Methane, dichloro-.....	1*	3	.....	A	10 (4.54)
Methylene diphenyl diisocyanate.....	101688	MDI.....	1*	3	.....	D	5000 (2270)
Methyl ethyl ketone.....	78933	2-Butanone.....	1*	3,4	U159	D	5000 (2270)
Methyl ethyl ketone peroxide.....	1338234	MEK.....	1*	4	U160	A	10 (4.54)
Methyl hydrazine.....	60344	2-Butanone peroxide.....	1*	3,4	P068	A	10 (4.54)
Methyl iodide.....	74884	Hydrazine, methyl-.....	1*	3,4	U138	B	100 (45.4)
Methyl isobutyl ketone.....	108101	Iodomethane.....	1*	3,4	U161	D	5000 (2270)
Methyl isocyanate.....	624839	Methane, iodo-.....	1*	4	.....	A	10 (4.54)
2-Methylacetonitrile.....	75865	Hexone.....	10	3,4	P064	A	10 (4.54)
Methylmercaptan.....	74931	4-Methyl-2-pentanone.....	100	1,4	P069	A	100 (45.4)
Methyl methacrylate.....	80626	Methanethiol.....	5000	1,3,4	U153	B	100 (45.4)
Methyl parathion.....	298000	Thiomethanol.....	100	1,4	U162	C	1000 (454)
4-Methyl-2-pentanone.....	108101	2-Propenoic acid, 2-methyl-, methyl ester.	1*	3,4	P071	B	100 (45.4)
Methyl tert-butyl ether.....	1634044	Phosphorothioic acid, O,O-dimethyl O-(4-dimethyl O-(4-nitrophenyl) ester.	1*	3	U161	D	5000 (2270)
Methylthiouracil.....	56042	Hexone.....	1*	4	.....	C	1000 (454)
Mevinphos.....	7786347	Methyl isobutyl ketone....	1*	3,4	U164	A	10 (4.54)
Mexacarbate.....	315184	.....	1000	1	.....	C	1000 (454)
Mitomycin C.....	50077	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[{(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta, 8aalpha, 8balpha)]-	1*	4	U010	A	10 (4.54)
MNNG.....	70257	Guanidine, N-methyl-N'-nitro-N-nitroso-.	1*	4	.....	A	10 (4.54)
Monoethylaniline.....	75047	.....	1000	1	.....	B	100 (45.4)
Monomethylamine.....	74895	.....	1000	1	.....	B	100 (45.4)
Multi Source Leachate.....		.....	1*	4	F039	X	1 (0.454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Muscimol.....	2763964	3 (2H)-Isoxazolone, 5-(aminomethyl) - 5-(Aminomethyl) -3-isoxazolol.	1*	4	P007	C	1000 (454)
Naled.....	300765	.....	10	1	.....	A	10 (4.54)
5,12-Naphthacenedione, 8-acetyl-10-[3-amino-2,3,6-trideoxy-alpha-L-lyxo-hexopyranosyl oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	20830813	Daunomycin.....	1*	4	U059	A	10 (4.54)
1-Naphthalenamine.....	134327	alpha-Naphthylamine.....	1*	4	U167	B	100 (45.4)
2-Naphthalenamine.....	91598	beta-Naphthylamine.....	1*	4	U168	A	10 (4.54)
Naphthalenamine, N,N'-bis(2-chloroethyl)-.	494031	Chlornaphazine.....	1*	4	U026	B	100 (45.4)
Naphthalene.....	91203	.....	5000	1,2,3,4	U165	B	100 (45.4)
Naphthalene, 2-chloro-.....	91587	beta-Chloronaphthalene 2-Chloronaphthalene.	1*	2,4	U047	D	5000 (2270)
1,4-Naphthalenedione.....	130154	1,4-Naphthoquinone.....	1*	4	U166	D	5000 (2270)
2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.	72571	Trypan blue.....	1*	4	U236	A	10 (4.54)
Naphtheneic acid.....	1338245	.....	100	1	.....	B	100 (45.4)
1,4-Naphthoquinone.....	130154	1,4-Naphthalenedione.....	1*	4	U166	D	5000 (2270)
alpha-Naphthylamine.....	134327	1-Naphthalenamine.....	1*	4	U167	B	100 (45.4)
beta-Naphthylamine.....	91598	2-Naphthalenamine.....	1*	4	U168	A	10 (4.54)
alpha-Naphthylthiourea.....	86884	Thiourea, 1-naphthalenyl-.	1*	4	P072	B	100 (45.4)
Nickel <dagger><dagger>.....	7440020	.....	1*	2	.....	B	100 (45.4)
Nickel ammonium sulfate.....	15699180	.....	5000	1	.....	B	100 (45.4)
NICKEL AND COMPOUNDS.....	N.A.	Nickel Compounds.....	1*	2,3	.....	B	**
Nickel Compounds.....	N.A.	NICKEL AND COMPOUNDS.....	1*	2,3	.....	B	**
Nickel carbonyl.....	13463393	Nickel carbonyl Ni(CO)4, (T-4)-.	1*	4	P073	A	10 (4.54)
Nickel carbonyl Ni(CO)4, (T-4)-.....	13463393	Nickel carbonyl.....	1*	4	P073	A	10 (4.54)
Nickel chloride.....	7718549	.....	5000	1	.....	B	100 (45.4)
Nickel cyanide.....	557197	Nickel cyanide Ni(CN)2.....	1*	4	P074	A	10 (4.54)
Nickel cyanide Ni(CN)2.....	557197	Nickel cyanide.....	1*	4	P074	A	10 (4.54)
Nickel hydroxide.....	12054487	.....	1000	1	.....	A	10 (4.54)
Nickel nitrate.....	14216752	.....	5000	1	.....	B	100 (45.4)
Nickel sulfate.....	7786814	.....	5000	1	.....	B	100 (45.4)
Nicotine, & salts.....	54115	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-.	1*	4	P075	B	100 (45.4)
Nitric acid.....	7697372	.....	1000	1	.....	C	1000 (454)
Nitric acid, thallium (1+) salt.....	10102451	Thallium (I) nitrate.....	1*	4	U217	B	100 (45.4)
Nitric oxide.....	10102439	Nitrogen oxide NO.....	1*	4	P076	A	10 (4.54)
p-Nitroaniline.....	100016	Benzenamine, 4-nitro-.....	1*	4	P077	A	5000 (2270)
Nitrobenzene.....	98953	Benzene, nitro-.....	1000	1,2,3,4	U169	C	1000 (454)
4-Nitrobiphenyl.....	92933	.....	1*	3	.....	A	10 (4.54)
Nitrogen dioxide.....	10102440	Nitrogen oxide NO<INF>2</INF>.....	1000	1,4	P078	A	10 (4.54)
10 (4.54)	10544726	.....					

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Nitrogen oxide NO.....	10102439	Nitric oxide.....	1*	4	P076	A	10 (4.54)
Nitrogen oxide NO<INF>2</INF>.....	10544726	10102440 Nitrogen dioxide.	1000	1,4	P078	A	10 (4.54)
Nitroglycerine.....	55630	1,2,3-Propanetriol, trinitrate-.	1*	4	P081	A	10 (4.54)
Nitrophenol (mixed).....	25154556	.....	1000	1	.....	B	100 (45.4)
m-Nitrophenol.....	554847	.....	.....	.....	.....	B	100 (45.4)
o-Nitrophenol.....	88755	2-Nitrophenol.....	.....	.....	.....	.....	.....
p-Nitrophenol.....	100027	4-Nitrophenol.....	1000	1,2,3,4	U170	B	100 (45.4)
o-Nitrophenol.....	88755	Phenol, 4-nitro-.....	1000	1,2	.....	B	100 (45.4)
p-Nitrophenol.....	100027	Phenol, 4-nitro-.....	1000	1,2,4	U170	B	100 (45.4)
4-Nitrophenol.....	88755	4-Nitrophenol.....	1000	1,2	.....	B	100 (45.4)
2-Nitrophenol.....	100027	p-Nitrophenol.....	1000	1,2,3,4	U170	B	100 (45.4)
NITROPHENOLS.....	N.A.	Phenol, 4-nitro-.....	1*	2	.....	.....	.....
2-Nitropropane.....	79469	Propane, 2-nitro.....	1*	3,4	U171	A	10 (4.54)
NITROSAMINES.....	N.A.	.....	1*	2	.....	.....	.....
N-Nitrosodi-n-butylamine.....	924163	1-Butanamine, N-butyl-N-nitroso-.	1*	4	U172	A	10 (4.54)
N-Nitrosodiethanolamine.....	1116547	Ethanol, 2,2'- (nitrosoimino)bis-.	1*	4	U173	X	1 (0.454)
N-Nitrosodiethylamine.....	55185	Ethanamine, N-ethyl-N-nitroso-.	1*	4	U174	X	1 (0.454)
N-Nitrosodimethylamine.....	62759	Methanamine, N-methyl-N-nitroso-.	1*	2,3,4	P082	A	10 (4.54)
N-Nitrosodiphenylamine.....	86306	.....	1*	2	.....	B	100 (45.4)
N-Nitroso-N-ethylurea.....	759739	Urea, N-ethyl-N-nitroso-..	1*	4	U176	X	1 (0.454)
N-Nitroso-N-methylurea.....	684935	Urea, N-methyl-N-nitroso..	1*	3,4	U177	X	1 (0.454)
N-Nitroso-N-methylurethane.....	615532	Carbamic acid, methylnitroso-, ethyl ester.	1*	4	U178	X	1 (0.454)
N-Nitrosomethylvinylamine.....	4549400	Vinylamine, N-methyl-N-nitroso-.	1*	4	P084	A	10 (4.54)
N-Nitrosomorpholine.....	59892	.....	1*	3	.....	X	1 (0.454)
N-Nitrosopiperidine.....	100754	Piperidine, 1-nitroso-....	1*	4	U179	A	10 (4.54)
N-Nitrosopyrrolidine.....	930552	Pyrrolidine, 1-nitroso-...	1*	4	U180	X	1 (0.454)
Nitrotoluene.....	1321126	.....	1000	1	.....	C	1000 (454)
m-Nitrotoluene.....	99081	.....	.....	.....	.....	.....	.....
o-Nitrotoluene.....	88722	.....	.....	.....	.....	.....	.....
p-Nitrotoluene.....	99990	.....	.....	.....	.....	.....	.....
5-Nitro-o-toluidine.....	99558	Benzenamine, 2-methyl-5-nitro-.	1*	4	U181	B	100 (45.4)
Octamethylpyrophosphoramide.....	152169	Diphosphoramide, octamethyl-.	1*	4	P085	B	100 (45.4)
Osmium oxide OsO<INF>4</INF> (T-4)-.....	.....	20816120 Osmium tetroxide.	1*	4	P087	C	1000 (454)
Osmium tetroxide.....	20816120	Osmium oxide OsO<INF>4</INF> (T-4)-.1*	1*	4	P087	C	1000 (454)
7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid	145733	Endothall.....	1*	4	P088	C	1000 (454)
1,2-Oxathiolane, 2,2-dioxide.....	1120714	1,3-Propane sultone.....	1*	3,4	U193	A	10 (4.54)
2H-1,3,2-Oxazaphosphorin-2-amine, N,N-	50180	Cyclophosphamide.....	1*	4	U058	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
bis(2-chloroethyl)tetrahydro-, 2-oxide							
Oxirane.....	75218	Ethylene oxide.....	1*	3, 4	U115	A	10 (4.54)
Oxiranecarboxaldehyde.....	765344	Glycidylaldehyde.....	1*	4	U126	A	10 (4.54)
Oxirane, (chloromethyl)-.....	106898	1-Chloro-2,3-epoxypropane. Epichlorohydrin.....	1000	1,3,4	U041	B	100 (45.4)
Paraformaldehyde.....	30525894	.....	1000	1	.....	C	1000 (454)
Paraldehyde.....	123637	1,3,5-Trioxane, 2,4,6-trimethyl- Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl)ester.	1*	4	U182	C	1000 (454)
Parathion.....	56382	.....	1	1,3,4	P089	A	10 (4.54)
PCBs.....	1336363	Aroclors..... POLYCHLORINATED BIPHENYLS.	10	1,2,3	.....	X	1 (0.454)
Aroclor 1016.....	12674112	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1221.....	11104282	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1232.....	11141165	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1242.....	53469219	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1248.....	12672296	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1254.....	11097691	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1260.....	11096825	.....	10	1,2,3	.....	X	1 (0.454)
PCNB.....	82688	Benzene, pentachloronitro- Pentachloronitro-..... benzene.....	1*	3,4	U185	B	100 (45.4)
Pentachlorobenzene.....		Quintobenzene.....					
Pentachloroethane.....	608935	Benzene, pentachloro-.....	1*	4	U183	A	10 (4.54)
Pentachloronitrobenzene.....	76017	Ethane, pentachloro-.....	1*	4	U184	A	10 (4.54)
	82688	Benzene, pentachloronitro- PCNB.....	1*	3,4	U185	B	100 (45.4)
Pentachlorophenol.....		Quintobenzene.....					
1,3-Pentadiene.....	87865	Phenol, pentachloro-.....	10	1,2,3,4	U242	A	10 (4.54)
Perchloroethylene.....	504609	1-Methylbutadiene.....	1*	4	U186	B	100 (45.4)
	127184	Ethene, tetrachloro-..... Tetrachloroethene..... Tetrachloroethylene.....	1*	2,3,4	U210	B	100 (45.4)
Phenacetin.....	62442	Acetamide, N-(4-ethoxyphenyl)- .....	1*	4	U187	B	100 (45.4)
Phenanthrene.....	85018	.....	1*	2	.....	D	5000 (2270)
Phenol.....	108952	Benzene, hydroxy-.....	1000	1,2,3,4	U188	C	1000 (454)
Phenol, 2-chloro-.....	95578	o-Chlorophenol 2-Chlorophenol.	1*	2,4	U048	B	100 (45.4)
Phenol, 4-chloro-3-methyl-.....	59507	p-Chloro-m-cresol..... 4-Chloro-m-cresol.....	1*	2,4	U039	D	5000 (2270)
Phenol, 2-cyclohexyl-4,6-dinitro-.....	131895	2-Cyclohexyl-4,6-dinitrophenol.	1*	4	P034	B	100 (45.4)
Phenol, 2,4-dichloro-.....	120832	2,4-Dichlorophenol.....	1*	2,4	U081	B	100 (45.4)
Phenol, 2,6-dichloro-.....	87650	2,6-Dichlorophenol.....	1*	4	U082	B	100 (45.4)
Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)	56531	Diethylstilbestrol.....	1*	4	U089	X	1 (0.454)
Phenol, 2,4-dimethyl-.....	105679	2,4-Dimethylphenol.....	1*	2,4	U101	B	100 (45.4)
Phenol, 2,4-dinitro-.....	51285	2,4-Dinitrophenol.....	1000	1,2,3,4	P048	A	10 (4.54)
Phenol, methyl-.....	1319773	Cresols (isomers and mixture).	1000	1,3,4	U052	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Phenol, 2-methyl-4,6-dinitro-, & salts	534521	Cresylic acid (isomers and mixture). 4,6-Dinitro-o-cresol, and salts.	1*	2,3,4	P047	A	10 (4.54)
Phenol, 2,2'-methylenebis[3,4,6-trichloro-.	70304	Hexachlorophene.....	1*	4	U132	B	100 (45.4)
Phenol, 3-(1-methylethyl)-, methyl carbamate (m-Cumenyl methylcarbamate).	64006	.....	1*	4	P202	.....	##
Phenol, 2-(1-methylpropyl)-4,6-dinitro	88857	Dinoseb.....	1*	4	P020	C	1000 (454)
Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate (Promecarb).	2631370	.....	1*	4	P201	.....	##
Phenol, 4-nitro-.....	100027	p-Nitrophenol.....	1000	1,2,3,4	U170	B	100 (45.4)
Phenol, pentachloro-.....	87865	4-Nitrophenol.....	10	1,2,3,4	U242	A	10 (4.54)
Phenol, 2,3,4,6-tetrachloro-.....	59902	Pentachlorophenol.....	1*	4	U212	A	10 (4.54)
Phenol, 2,4,5-trichloro-.....	95954	2,3,4,6-Tetrachlorophenol.....	10	1,3,4	U230	A	10 (4.54)
Phenol, 2,4,6-trichloro-.....	88062	2,4,5-Trichlorophenol.....	10	1,2,3,4	U231	A	10 (4.54)
Phenol, 2,4,6-trinitro-, ammonium salt	131748	2,4,6-Trichlorophenol.....	1*	4	P009	A	10 (4.54)
L-Phenylalanine, 4-[bis(2-chloroethyl)aminol]	148823	Ammonium picrate.....	1*	4	U150	X	1 (0.454)
p-Phenylenediamine.....	106503	Melphalan.....	1*	3	.....	D	5000 (2270)
1,10-(1,2-Phenylene)pyrene.....	193395	.....	1*	2,4	U137	B	100 (45.4)
Phenylmercury acetate.....	62384	Indeno(1,2,3-cd)pyrene....	1*	4	P092	B	100 (45.4)
Phenylthiourea.....	103855	Mercury, (acetato-O)phenyl-.	1*	4	P093	B	100 (45.4)
Phorate.....	298022	Thiourea, phenyl-.....	1*	4	P094	A	10 (4.54)
Phosgene.....	75445	Phosphorodithioic acid, O,O-diethyl S- (ethylthio), methyl ester.	5000	1,3,4	P095	A	10 (4.54)
Phosphine.....	7803512	Carbonic dichloride.....	1*	3,4	P096	B	100 (45.4)
Phosphoric acid.....	7664382	Hydrogen phosphide.....	5000	1	.....	D	5000 (2270)
Phosphoric acid, diethyl 4-nitrophenyl ester.	311455	.....	1*	4	P041	B	100 (45.4)
Phosphoric acid, lead(2+) salt (2:3)...	7446277	Diethyl-p-nitrophenyl phosphate.	1*	4	U145	A	10 (4.54)
Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	298044	Lead phosphate.....	1	1,4	P039	X	1 (0.454)
Phosphorodithioic acid, O,O-diethyl S-(ethylthio), methyl ester	298022	Disulfoton.....	1*	4	P094	A	10 (4.54)
Phosphorodithioic acid, O,O-diethyl S-methyl ester	3288582	Phorate.....	1*	4	U087	D	5000 (2270)
Phosphorodithioic acid, O,O-dimethyl S-[2(methylamino)-2-oxoethyl] ester	60515	O,O-Diethyl S-methyl dithiophosphate.	1*	4	P044	A	10 (4.54)
Phosphorofluoridic acid, bis(1-methylethyl) ester	55914	Dimethoate.....	1*	4	P043	B	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester.	56382	Diisopropylfluorophosphate	1	1,3,4	P089	A	10 (4.54)
Phosphorothioic acid, O,[4-[(dimethylamino) sulfonyl]phenyl]O,O-dimethyl ester	52857	Parathion.....	1*	4	P097	C	1000 (454)
Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	298000	Famphur.....	100	1,4	P071	B	100 (45.4)
Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	297972	Methyl parathion.....	1*	4	P040	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
pyrazinyl ester.		phosphorothioate.					
Phosphorus.....	7723140	.....	1	1,3	.....	X	1 (0.454)
Phosphrous oxychloride.....	10025873	.....	5000	1	.....	C	1000 (454)
Phosphorus pentasulfide.....	1314803	Phosphorus sulfide Sulfur phosphide.	100	1,4	U189	B	100 (45.4)
Phosphorus sulfide.....	1314803	Phosphorus pentasulfide Sulfur phosphide.	100	1,4	U189	B	100 (45.4)
Phosphorus trichloride.....	7719122	.....	5000	1	.....	C	1000 (454)
PTHALATE ESTERS.....	N.A.	.....	1*	2	.....	**	**
Phthalic anhydride.....	85449	1,3-Isobenzofurandione.....	1*	3,4	U190	D	5000 (2270)
2-Picoline.....	109068	Pyridine, 2-methyl-.....	1*	4	U191	D	5000 (2270)
Piperidine, 1-nitroso-.....	100754	N-Nitrosopiperidine.....	1*	4	U179	A	10 (4.54)
Plumbane, tetraethyl-.....	78002	Tetraethyl lead.....	100	1,4	P110	A	10 (4.54)
POLYCHLOR INATED BIPHENYLS.....	1336363	Aroclors.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1016.....	12674112	PCBs.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1221.....	11104282	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1232.....	11141165	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1242.....	53469219	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1248.....	12672296	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1254.....	11097691	.....	10	1,2,3	.....	X	1 (0.454)
Aroclor 1260.....	11096825	.....	1*	3	.....	**	**
Polycyclic Organic Matter <SUP>e</SUP>.	N.A.	.....	1*	2	.....	.....	.....
POLYNUCLEAR AROMATIC HYDROCARBONS.....	N.A.	.....	1000	1	.....	X	1 (0.454)
Potassium arsenate.....	7784410	.....	1000	1	.....	X	1 (0.454)
Potassium arsenite.....	10124502	.....	1000	1	.....	X	1 (0.454)
Potassium bichromate.....	7778509	.....	1000	1	.....	A	10 (4.54)
Potassium chromate.....	7789006	.....	1000	1	.....	A	10 (4.54)
Potassium cyanide.....	151508	Potassium cyanide K (CN).....	10	1,4	P098	A	10 (4.54)
Potassium cyanide K(CN).....	151508	Potassium cyanide.....	10	1,4	P098	A	10 (4.54)
Potassium hydroxide.....	1310583	.....	1000	1	.....	C	1000 (454)
Potassium permanganate.....	7722647	.....	100	1	.....	B	100 (45.4)
Potassium silver cyanide.....	506616	Argentate (1-), bis(cyano-C)-, potassium.	1*	4	P099	X	1 (0.454)
Pronamide.....	23950585	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	1*	4	U192	D	5000 (2270)
Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	116063	Aldicarb.....	1*	4	P070	X	1 (0.454)
1-Propanamine.....	107108	n-Propylamine.....	1*	4	U194	D	5000 (2270)
1-Propanamine, N-propyl-.....	142847	Dipropylamine.....	1*	4	U110	D	5000 (2270)
1-Propanamine, N-nitroso-N-propyl-....	621647	Di-n-propylnitrosamine....	1*	2,4	U111	A	10 (4.54)
Propane, 2-nitro.....	79469	2-Nitropropane.....	1*	3,4	U171	A	10 (4.54)
1,3-Propane sultone.....	1120714	1,2-Oxathiolane, 2,2-dioxide.	1*	3,4	U193	A	10 (4.54)
Propane, 1,2-dibromo-3-chloro.....	96128	1,2-Dibromo-3-chloropropane.	1*	3,4	U066	X	1 (0.454)
Propane, 1,2-dichloro-.....	78875	1,2-Dichloropropane.....	5000	1,2,3,4	U083	C	1000 (454)
Propanedinitrile.....	109773	Propylene dichloride.....	1*	4	U149	C	1000 (454)
Propanenitrile.....	107120	Malononitrile.....	1*	4	P101	A	10 (4.54)
Propanenitrile, 3-chloro-.....	542767	Ethyl cyanide.....	1*	4	P027	C	1000 (454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Propanenitrile, 2-hydroxy-2-methyl-...	75865	Acetone cyanohydrin..... 2-Methylactonitrile.....	10	1,4	P069	A	10 (4.54)
Propane, 2,2'-oxybis[2-chloro-.....	108601	Dichloroisopropyl ether.....	1*	2,4	U027	C	1000 (454)
1,2,3-Propanetriol, trinitrate-.....	55630	Nitroglycerine.....	1*	4	P081	A	10 (4.54)
1-Propanol, 2,3-dibromo-, phosphate (3:1).	126727	Tris(2,3-dibromopropyl) phosphate.	1*	4	U235	A	10 (4.54)
1-Propanol, 2-methyl-.....	78831	Isobutyl alcohol.....	1*	4	U140	D	5000 (2270)
Propanal, 2-methyl-2- (methylsulfonyl)-, O-[(methylamino)carbonyl] oxime (Aldicarb sulfone).	1646884	.....	1*	4	P203	.....	.....
2-Propanone.....	67641	Acetone.....	1*	4	U002	D	5000 (2270)
2-Propanone, 1-bromo-.....	598312	Bromoacetone.....	1*	4	P017	C	1000 (454)
Propargite.....	2312358	.....	10	1	.....	A	10 (4.54)
Propargyl alcohol.....	107197	2-Propyn-1-ol.....	1*	4	P102	C	1000 (454)
2-Propenal.....	107028	Acrolein.....	1	1,2,3,4	P003	X	1 (0.454)
2-Propenamide.....	79061	Acrylamide.....	1*	3,4	U007	D	5000 (2270)
1-Propene, 1,1,2,3,3-hexachloro-.....	1888717	Hexachloropropene.....	1*	4	U243	C	1000 (454)
1-Propene, 1,3-dichloro-.....	542756	1,3-Dichloropropene.....	5000	1,2,3,4	U084	B	100 (45.4)
2-Propenenitrile.....	107131	Acrylonitrile.....	100	1,2,3,4	U009	B	100 (45.4)
2-Propenenitrile, 2-methyl-.....	126987	Methacrylonitrile.....	1*	4	U152	C	1000 (454)
2-Propenoic acid.....	79107	Acrylic acid.....	1*	3,4	U008	D	5000 (2270)
2-Propenoic acid, ethyl ester.....	140885	Ethyl acrylate.....	1*	3,4	U113	C	1000 (454)
2-Propenoic acid, 2-methyl-, ethyl ester.	97632	Ethyl methacrylate.....	1*	4	U118	C	1000 (454)
2-Propenoic acid, 2-methyl-, methyl ester.	80626	Methyl methacrylate.....	5000	1,3,4	U162	C	1000 (454)
2-Propen-1-ol.....	107186	Allyl alcohol.....	100	1,4	P005	B	100 (45.4)
beta-Propiolactone.....	57578	.....	1*	3	.....	A	10 (4.54)
Propionaldehyde.....	123386	.....	1*	3	.....	C	1000 (454)
Propionic acid.....	79094	.....	5000	1	.....	D	5000 (2270)
Propionic acid, 2-(2,4,5-trichlorophenoxy)-.	93721	Silvex (2,4,5-TP)..... 2,4,5-TP acid.....	100	1,4	U233	B	100 (45.4)
Propionic anhydride.....	123626	.....	5000	1	.....	D	5000 (2270)
Propoxur (Baygon).....	114261	.....	1*	3	.....	B	100 (45.4)
n-Propylamine.....	107108	1-Propanamine.....	1*	4	U194	D	5000 (2270)
Propylene dichloride.....	78875	1,2-Dichloropropane..... Propane, 1,2-dichloro-....	5000	1,2,3,4	U083	C	1000 (454)
Propylene oxide.....	75569	.....	5000	1,3	.....	B	100 (45.4)
1,2-Propylenimine.....	75558	Aziridine, 2-methyl-.... 2-Methyl aziridine.....	1*	3,4	P067	X	1 (0.454)
2-Propyn-1-ol.....	107197	Propargyl alcohol.....	1*	4	P102	C	1000 (454)
Pyrene.....	129000	.....	1*	2	.....	D	5000 (2270)
Pyrethrins.....	121299 121211 8003347	..... ..... Maleic hydrazide..... 4-Aminopyridine.....	1000	1	.....	X	1 (0.545)
3,6-Pyridazinedione, 1,2-dihydro-.....	123331	.....	1*	4	U148	D	5000 (2270)
4-Pyridinamine.....	504245	.....	1*	4	P008	C	1000 (454)
Pyridine.....	110861	.....	1*	4	U196	C	1000 (454)
Pyridine, 2-methyl-.....	109068	2-Picoline.....	1*	4	U191	D	5000 (2270)
Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-.	54115	Nicotine, & salts.....	1*	4	P075	B	100 (45.4)
2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-	66751	Uracil mustard.....	1*	4	U237	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
chloroethyl)amino]- 4(1H)-Pyrimidinone, 2,3-dihydro-6- methyl-2-thioxo-	56042	Methylthiouracil.....	1*	4	U164	A	10 (4.54)
Pyrrolidine, 1-nitroso-.....	930552	N-Nitrosopyrrolidine.....	1*	4	U180	X	1 (0.454)
Pyrolo[2,3-b] indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8- trimethyl-, methylcarbamate (ester), (3aS-cis)-(Physostigmine.	57476	.....	1*	4	P204	.....	##
Quinoline.....	91225	.....	1000	1,3	.....	D	5000 (2270)
Quinone.....	106514	p-Benzoquinone..... 2,5-Cyclohexadiene-1,4- dione.	1*	3,4	U197	A	10 (4.54)
Quintobenzene.....	82688	Benzene, pentachloronitro. PCNB..... Pentachloronitro-..... benzene.....	1*	3,4	U185	B	100 (45.4)
RADIONUCLIDES.....	N.A.	.....	1*	3	.....	.....	Sec.
Radionuclides (including radon).....	N.A.	.....	1*	3	.....	.....	Sec.
Reserpine.....	50555	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18- [(3,4,5- trimethoxybenzoyl)oxy-, methyl ester (3beta, 16beta,17alpha,18beta,20a lpha))-.	1*	4	U200	D	5000 (2270)
Resorcinol.....	108463	1,3-Benzenediol.....	1000	1,4	U201	D	5000 (2270)
Saccharin and salts.....	81072	1,2-Benzisothiazol-3(2H)- one, 1,1-dioxide.	1*	4	U202	B	100 (45.4)
Safrole.....	94597	1,3-Benzodioxole, 5-(2- propenyl))-.	1*	4	U203	B	100 (45.4)
Selenious acid.....	7783008	.....	1*	4	U204	A	10 (4.54)
Selenious acid, dithallium (1+) salt..	12039520	Thallium selenite.....	1*	4	P114	C	1000 (454)
Selenium <dagger><dagger>.....	7782492	.....	1*	2	.....	B	100 (45.4)
SELENIUM AND COMPOUNDS.....	N.A.	Selenium Compounds.....	1*	2,3	.....	.....	***
Selenium Compounds.....	N.A.	SELENIUM COMPOUNDS.....	1*	2,3	.....	.....	***
Selenium dioxide.....	7446084	Selenium oxide.....	1000	1,4	U204	A	10 (4.54)
Selenium oxide.....	7446084	Selenium dioxide.....	1000	1,4	U204	A	10 (4.54)
Selenium sulfide.....	7488564	Selenium sulfide SeS<INF>2</INF>.....	1*	4	U205	A	10 (4.54)
10 (4.54)							
Selenium sulfide SeS<INF>2</INF>.....		7488564 Selenium sulfide.....	1*	4	U205	A	
10 (4.54)							
Selenourea.....	630104	.....	1*	4	P103	C	1000 (454)
L-Serine, diazoacetate (ester).....	115026	Azaserine.....	1*	4	U015	X	1 (0.454)
Silver <dagger><dagger>.....	7440224	.....	1*	2	.....	C	1000 (454)
SILVER AND COMPOUNDS.....	N.A.	.....	1*	2	.....	.....	***
Silver cyanide.....	506649	Silver cyanide Ag (CN)...	1*	4	P104	X	1 (0.454)
Silver cyanide Ag (CN).....	506649	Silver cyanide.....	1*	4	P104	X	1 (0.454)
Silver nitrate.....	7761888	.....	1	1	.....	X	1 (0.454)
Silvex (2,4,5-TP).....	93721	Propionic acid, 2-(2,4,5- trichlorophenoxy))-.	100	1,4	U233	B	100 (45.4)
Sodium.....	7440235	2,4,5-TP acid.....	1000	1	.....	A	10 (4.54)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Sodium arsenate.....	7631892	.....	1000	1	.....	X	1 (0.454)
Sodium arsenite.....	7784465	.....	1000	1	.....	X	1 (0.454)
Sodium azide.....	26628228	.....	1*	4	P105	C	1000 (454)
Sodium bichromate.....	10588019	.....	1000	1	.....	A	10 (4.54)
Sodium bifluoride.....	1333831	.....	5000	1	.....	B	100 (45.4)
Sodium bisulfite.....	7631905	.....	5000	1	.....	D	5000 (2270)
Sodium chromate.....	7775113	.....	1000	1	.....	A	10 (4.54)
Sodium cyanide.....	143339	Sodium cyanide Na(CN).....	10	1,4	P106	A	10 (4.54)
Sodium cyanide Na(CN).....	143339	Sodium cyanide.....	10	1,4	P106	A	10 (4.54)
Sodium dodecylbenzenesulfonate.....	25155300	.....	1000	1	.....	C	1000 (454)
Sodium fluoride.....	7681494	.....	5000	1	.....	C	1000 (454)
Sodium hydrosulfide.....	16721805	.....	5000	1	.....	D	5000 (2270)
Sodium hydroxide.....	1310732	.....	1000	1	.....	C	1000 (454)
Sodium hypochlorite.....	7681529	.....	100	1	.....	B	100 (45.4)
	10022705	.....					
Sodium methylate.....	124414	.....	1000	1	.....	C	1000 (454)
Sodium nitrite.....	7632000	.....	100	1	.....	B	100 (45.4)
Sodium phosphate, dibasic.....	7558794	.....	5000	1	.....	D	5000 (2270)
	10039324	.....					
	10140655	.....					
Sodium phosphate, tribasic.....	7601549	.....	5000	1	.....	D	5000 (2270)
	7758294	.....					
	7785844	.....					
	10101890	.....					
	10124568	.....					
	10361894	.....					
Sodium selenite.....	10102188	.....	1000	1	.....	B	100 (45.4)
	7782823	.....					
Streptozotocin.....	18883664	D-Glucose, 2-deoxy-2- [[ (methylnitrosoamino) - carbonyl]amino] -. Glucopyranose, 2-deoxy-2- (3-methyl-3- nitrosoureido) -.	1*	4	U206	X	1 (0.454)
		.....					
Strontium chromate.....	7789062	.....	1000	1	.....	A	10 (4.54)
Strychnidin-10-one.....	57249	Strychnine, & salts.....	10	1,4	P108	A	10 (4.54)
Strychnidin-10-one, 2,3-dimethoxy-.....	357573	Brucine.....	1*	4	P018	B	100 (45.4)
Strychnine, & salts.....	57249	Strychnidin-10-one.....	10	1,4	P108	A	10 (4.54)
Styrene.....	100425	.....	1000	1,3	.....	C	1000 (454)
Styrene oxide.....	96093	.....	1*	3	.....	B	100 (45.4)
Sulfur monochloride.....	12771083	.....	1000	1	.....	C	1000 (454)
Sulfur phosphide.....	1314803	Phosphorus pentasulfide... Phosphorus sulfide.....	100	1,4	U189	B	100 (45.4)
		.....					
Sulfuric acid.....	7664939	.....	1000	1	.....	C	1000 (454)
	8014957	.....					
Sulfuric acid, dithallium (1+) salt...	7446186	Thallium (I) sulfate.....	1000	1,4	P115	B	100 (45.4)
	10031591	.....					
Sulfuric acid, dimethyl ester.....	77781	Dimethyl sulfate.....	1*	3,4	U103	B	100 (45.4)
2,4,5-T acid.....	93765	Acetic acid, (2,4,5- trichlorophenoxy) . 2,4,5-T.....	100	1,4	U232	C	1000 (454)
		.....					
2,4,5-T amines.....	2008460	.....	100	1	.....	D	5000 (2270)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
2,4,5-T esters.....	1319728	.....	100	1	.....	C	1000 (454)
	3813147	.....					
	6369966	.....					
	6369977	.....					
	93798	.....					
1928478	.....	1	.....	.....	.....	.....	.....
2545597	.....	1	.....	.....	.....	.....	.....
25168154	.....	100	1	.....	.....	.....	.....
61792072	.....	100	1,4	U232	.....	.....	.....
2,4,5-T salts.....	13560991	.....	100	1	.....	.....	.....
2,4,5-T.....	93765	.....	100	1,4	U232	.....	.....
TCDD.....	1746016	.....	1*	2,3	.....	X	1 (0.454)
TDE.....	72548	.....	1	1,2,4	U060	X	1 (0.454)
1,2,4,5-Tetrachlorobenzene.....	95943	.....	1*	4	U207	D	5000 (2270)
2,3,7,8-Tetrachlorodibenzo-p-dioxin...	1746016	.....	1*	2,3	.....	X	1 (0.454)
1,1,1,2-Tetrachloroethane.....	630206	.....	1*	4	U208	B	100 (45.4)
1,1,2,2,-Tetrachloroethane.....	79345	.....	1*	2,3,4	U209	B	100 (45.4)
Tetrachloroethene.....	127184	.....	1*	2,3,4	U210	B	100 (45.4)
Tetrachloroethylene.....	127184	.....	1*	2,3,4	U210	B	100 (45.4)
2,3,4,6-Tetrachlorophenol.....	58902	.....	1*	4	U212	A	10 (4.54)
Tetraethyl lead.....	78002	.....	100	1,4	P110	A	10 (4.54)
Tetraethyl pyrophosphate.....	107493	.....	100	1,4	P111	A	10 (4.54)
Tetraethyldithiopyrophosphate.....	3689245	.....	1*	4	P109	B	100 (45.4)
Tetrahydrofuran.....	109999	.....	1*	4	U213	C	1000 (454)
Tetranitromethane.....	509148	.....	1*	4	P112	A	10 (4.54)
Tetraphosphoric acid, hexaethyl ester.	757584	.....	1*	4	P062	B	100 (45.4)
Thallic oxide.....	1314325	.....	1*	4	P113	B	100 (45.4)
Thallium <dagger><dagger>.....	7440280	.....	1*	2	.....	C	1000 (454)
Thallium and compounds	N.A.	.....	1*	2	.....	.....	.....
Thallium (I) acetate.....	563688	.....	1*	4	U214	B	100 (45.4)
Thallium (I) carbonate.....	6533739	.....	1*	4	U215	B	100 (45.4)
Thallium (I) chloride.....	7791120	.....	1*	4	U216	B	100 (45.4)
Thallium chloride TlCl.....	7791120	.....	1*	4	U216	B	100 (45.4)
Thallium (I) nitrate.....	10102451	.....	1*	4	U217	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
Thallium oxide	1314325	Thallic oxide.....	1*	4	P113	B	100 (45.4)
Thallium selenite.....	12039520	Selenious acid, dithallium(1+) salt.	1*	4	P114	C	1000 (454)
Thallium (I) sulfate.....	7446186	Sulfuric acid, dithallium(1+) salt.	1000	1,4	P115	B	100 (45.4)
Thioacetamide.....	62555	Ethanethioamide.....	1*	4	U218	A	10 (4.54)
Thiodiphosphoric acid, tetraethyl ester.	3689245	Tetraethylthiopyrophosphate.	1*	4	P109	B	100 (45.4)
Thiofanox.....	39196184	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O[(methylamino)carbonyl] oxime.	1*	4	P045	B	100 (45.4)
Thioimimidocarbonic diamide [(H<INF>2</INF>N)C(S)] 2NH.	41537	Dithiobiuret.....	1*	4	P049	B	100 (45.4)
Thiomethanol.....	74931	Methanethiol.....	100	1,4	U153	B	100 (45.4)
Thioperoxydicarbonic diamide [(H<INF>2</INF>N)C(S)] 2S<INF>2</INF>, tetramethyl-.	137268	Methylmercaptan.....	1*	4	U244	A	10 (4.54)
Thiophenol.....	108985	Benzenethiol.....	1*	4	P014	B	100 (45.4)
Thiosemicarbazide.....	79196	Hydrazinecarbothioamide.....	1*	4	P116	B	100 (45.4)
Thiourea.....	62566	.....	1*	4	U219	A	10 (4.54)
Thiourea, (2-chlorophenyl)-.....	5344821	1-(o-Chlorophenyl)thiourea	1*	4	P026	B	100 (45.4)
Thiourea, 1-naphthalenyl-.....	86884	alpha-Naphthylthiourea....	1*	4	P072	B	100 (45.4)
Thiourea, phenyl-.....	103855	Phenylthiourea.....	1*	4	P093	B	100 (45.4)
Thiram.....	137268	Thioperoxydicarbonic diamide.	1*	4	U244	A	10 (4.54)
Titanium tetrachloride.....	7550450	[(H2N)C(S)] 2S2, tetramethyl-.	1*	3	.....	C	1000 (454)
Toluene.....	108893	Benzene, methyl.....	1000	1,2,3,4	U220	C	1000(454)
Toluenediamine.....	95807	Benzenediamine, ar-methyl-2,4-Toluene diamine.....	1*	3,4	U221	A	10(4.54)
2,4-Toluene diamine.....	496720	.....	1*	3,4	U221	A	10(4.54)
2,4-Toluene diamine.....	823405	Benzenediamine, ar-methyl-Toluenediamine.....	1*	3,4	U221	A	10(4.54)
2,4-Toluene diamine.....	25376458	.....	1*	3,4	U221	A	10(4.54)
Toluene diisocyanate.....	91087	Benzene, 1,3-diisocyanatomethyl-.	1*	3,4	U223	B	100 (45.4)
2,4-Toluene diisocyanate.....	584849	2,4-Toluene diisocyanate-.	1*	3,4	U223	B	100 (45.4)
o-Toluidine.....	26471625	Benzene, 1,3-diisocyanatomethyl-.	1*	3,4	U223	B	100 (45.4)
p-Toluidine.....	91087	Toluene diisocyanate.....	1*	3,4	U223	B	100 (45.4)
o-Toluidine hydrochloride.....	584849	Benzenamine, 2-methyl-....	1*	4	U328	B	100(45.4)
Toxaphene.....	95534	Benzenamine, 4-methyl-....	1*	4	U353	B	100 (45.4)
2,4,5-TP acid.....	106490	Benzenamine, 2-methyl-, hydrochloride.	1*	4	U222	B	100 (45.4)
	636215	Camphene, octachloro-.....	1*	1,2,3,4	P123	X	1 (0.454)
	8001352	Chlorinated camphene.....	100	1,4	U233	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)
2,4,5-TP esters.....	32534955	trichlorophenoxy) -.					
1H-1,2,4-Triazol-3-amine.....	61825	Silvex (2,4,5-TP).....	100	1	.....	B	100 (45.4)
Trichlorfon.....	52686	Amitrole.....	1*	4	U011	A	10 (4.54)
1,2,4-Trichlorobenzene.....	120821	.....	1000	1	.....	B	100 (45.4)
1,1,1-Trichloroethane.....	71556	.....	1*	2,3	.....	B	100 (45.4)
		Ethane, 1,1,1-trichloro-..	1*	2,3,4	U226	C	1000 (454)
1,1,2-Trichloroethane.....	79005	Methyl chloroform.....	1*				
Trichloroethene.....	79016	Ethane, 1,1,2-trichloro...	1000	2,3,4	U227	B	100 (45.4)
		Trichloroethylene.....	1000	1,2,3,4	U228	B	100 (45.4)
Trichloroethylene.....	79016	Ethane, trichloro.....	1000	1,2,3,4	U228	B	100 (45.4)
Trichloromethanesulfenyl chloride.....	594423	Trichloroethene.....	1*	4	P118	B	100 (45.4)
Trichloromonofluoromethane.....	75694	Methanesulfenyl chloride, trichloro-.	1*	4			
Trichlorophenol.....	25167822	Methane, trichlorofluoro-.	1*	4	U121	D	5000 (2270)
2,3,4-Trichlorophenol.....	15950660	.....	10	1	.....	A	10 (4.54)
2,3,5-Trichlorophenol.....	933788	.....			.....		
2,3,6-Trichlorophenol.....	933755	.....			.....		
2,4,5-Trichlorophenol.....	95954	Phenol, 2,4,5-trichloro-..	10	1,3,4	.....		
2,4,6-Trichlorophenol.....	88062	Phenol, 2,4,6-trichloro-..	10	1,2,3,4	U230	A	10 (4.54)
3,4,5-Trichlorophenol.....	609198	.....			U231	A	10 (4.54)
2,4,5-Trichlorophenol.....	95954	.....			.....		
2,4,6-Trichlorophenol.....	88062	.....	10*	1,4	.....		
Triethanolamine	27323417	.....	10	1,2,4	U230	A	10 (4.54)
dodecylbenzenesulfonate.		.....	1000	1	U231	A	10 (4.54)
Triethylamine.....	121448	.....			.....	C	1000 (454)
Trifluralin.....	1582098	.....	5000	1,3	.....	D	5000 (2270)
Trimethylamine.....	75503	.....	1*	3	.....	A	10 (4.54)
2,2,4-Trimethylpentane.....	540841	.....	1000	1	.....	B	100 (45.4)
1,3,5-Trinitrobenzene.....	99354	.....	1*	3	.....	C	1000 (454)
1,3,5-Trioxane, 2,4,6-trimethyl-.....	123637	Benzene, 1,3,5-trinitro-..	1*	4	.....	A	10 (4.54)
Tris(2,3-dibromopropyl) phosphate.....	126727	Paraldehyde.....	1*	4	U234	A	10 (4.54)
		1-Propanol, 2,3-dibromo-, phosphate [(3:1).	1*	4	U182	C	1000 (454)
		2,7-Naphthalenedisulfonic acid, 3,3'-3,3'-dimethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(azo)]bis(5-amino-4-hydroxy)-tetrasodium salt.	1*	4	U235	A	10 (4.54)
Trypan blue.....	72571	.....	1*	4	U236	A	10 (4.54)
Unlisted Hazardous Wastes		.....					
Characteristic of Corrosivity.		.....					
Unlisted Hazardous Wastes		.....					
Characteristics:.		.....					
Characteristic of Toxicity:		.....					
Arsenic (D004).....	N.A.	.....	1*	4	D002	B	100 (45.4)
Barium (D005).....	N.A.	.....					
Benzene (D018).....	N.A.	.....					
Cadmium (D006).....	N.A.	.....					
Carbon tetrachloride (D019).....	N.A.	.....					
Chlordane (D020).....	N.A.	.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					
		.....					

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code < dagger>	RCRA waste Number	Category	Pounds (Kg)
Chlorobenzene (D021)	N.A.	.....	100	1, 2, 4	D021	B	100 (45.4)
Chloroform (D022)	N.A.	.....	5,000	1, 2, 4	D022	A	10 (4.54)
Chromium (D007)	N.A.	.....	*1	4	D007	A	10 (4.54)
o-Cresol (D023)	N.A.	.....	1*	4	D023	B	100 (45.4)
m-Cresol (D024)	N.A.	.....	1*	4	D024	B	100 (45.4)
p-Cresol (D025)	N.A.	.....	1*	4	D025	B	100 (45.4)
Cresol (D026)	N.A.	.....	1*	4	D026	B	100 (45.4)
2,4-D (D016)	N.A.	.....	100	1, 4	D016	B	100 (45.4)
1,4-Dichlorobenzene (D027)	N.A.	.....	100	1, 2, 4	D027	B	100 (45.4)
1,2-Dichloroethane (D028)	N.A.	.....	5,000	1, 2, 4	D028	B	100 (45.4)
1,1-Dichloroethylene (D029)	N.A.	.....	5,000	1, 2, 4	D029	B	100 (45.4)
2,4-Dinitrotoluene (D030)	N.A.	.....	1,000	1, 2, 4	D030	A	10 (4.54)
Endrin (D012)	N.A.	.....	1	1, 4	D012	X	1 (0.454)
Heptachlor (and epoxide) (D031)	N.A.	.....	1	1, 2, 4	D031	X	1 (0.454)
Hexachlorobenzene (D032)	N.A.	.....	*1	2, 4	D032	A	10 (4.54)
Hexachlorobutadiene (D033)	N.A.	.....	*1	2, 4	D033	X	1 (0.454)
Hexachloroethane (D034)	N.A.	.....	*1	2, 4	D034	B	100 (45.4)
Lead (D008)	N.A.	.....	1*	4	D008	A	10 (4.54)
Lindane (D013)	N.A.	.....	1	1, 4	D013	X	1 (0.454)
Mercury (D009)	N.A.	.....	*1	4	D009	X	1 (0.454)
Methoxychlor (D014)	N.A.	.....	1	1, 4	D014	X	1 (0.454)
Methyl ethyl ketone (D035)	N.A.	.....	*1	4	D035	D	5,000 (2270)
Nitrobenzene (D036)	N.A.	.....	1,000	1, 2, 4	D036	C	1,000 (454)
Pentachlorophenol (D037)	N.A.	.....	10	1, 2, 4	D037	A	10 (4.54)
Pyridine (D038)	N.A.	.....	*1	4	D038	C	1,000 (454)
Selenium (D010)	N.A.	.....	*1	4	D010	A	10 (4.54)
Silver (D011)	N.A.	.....	*1	4	D011	X	1 (0.454)
Tetrachloroethylene (D039)	N.A.	.....	*1	2, 4	D039	B	100 (45.4)
Toxaphene (D015)	N.A.	.....	1	1, 4	D015	X	1 (0.454)
Trichloroethylene (D040)	N.A.	.....	1000	1, 2, 4	D040	B	100 (45.4)
2,4,5-Trichlorophenol (D041)	N.A.	.....	10	1, 4	D041	A	10 (4.54)
2,4,6-Trichlorophenol (D042)	N.A.	.....	10	1, 2, 4	D042	A	10 (4.54)
2,4,5-TP (D017)	N.A.	.....	100	1, 4	D017	B	100 (45.4)
Vinyl chloride (D043)	N.A.	.....	*1	2, 3, 4	D043	X	1 (0.454)
Unlisted Hazardous Wastes Characteristic of Ignitability.	N.A.	.....	1*	4	D001	B	100 (45.4)
Unlisted Hazardous Wastes Characteristic of Reactivity.	N.A.	.....	1*	4	D003	B	100 (45.4)
Uracil mustard.....	66751	2,4-(1H,3H)- pyrimidinedione, 5-[bis(2- chloroethyl)amino]-.	1*	4	U237	A	10 (4.54)
Uranyl acetate.....	541093	.....	5000	1	.....	B	100 (45.4)
Uranyl nitrate.....	10102064 36478769	.....	5000	1	.....	B	100 (45.4)
Urea, N-ethyl-N-nitroso-.....	759739	N-Nitroso-N-ethylurea.....	1*	4	U176	X	1 (0.454)
Urea, N-methyl-N-nitroso.....	684935	N-Nitroso-N-methylurea.....	1*	3,4	U177	X	1 (0.454)
Urethane.....	51796	Carbamic acid, ethyl ester Ethyl carbamate.....	1*	3,4	U238	B	100 (45.4)
Vanadic acid, ammonium salt.....	7803556	Ammonium vanadate.....	1*	4	P119	C	1000 (454)
Vanadium oxide V<INF>2</INF> O<INF>5</INF>	1314621	Vanadium pentoxide.....	1000	1,4	P120	C	1000 (454)
Vanadium pentoxide.....	1314621	Vanadium oxide V<INF>2</INF> O<INF>5</INF>	1000	1,4	P120	C	1000 (454)
Vanadyl sulfate.....	27774136	.....	1000	1	.....	C	1000 (454)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ	
			RQ	Code <dagger>	RCRA waste Number		Category
Vinyl acetate.....	108054	Vinyl acetate monomer.....	1000	1,3	.....	D	5000 (2270)
Vinyl acetate monomer.....	108054	Vinyl acetate.....	1000	1,3	.....	D	5000 (2270)
Vinylamine, N-methyl-N-nitroso-.....	4549400	N-Nitrosomethylvinylamine.....	1*	4	P084	A	10 (4.54)
Vinyl bromide.....	593602	.....	1*	3	.....	B	100 (45.4)
Vinyl chloride.....	75014	Ethene, chloro-.....	1*	2,3,4	U043	X	1 (0.454)
Vinylidene chloride.....	75354	1,1-Dichloroethylene.....	5000	1,2,3,4	U078	B	100 (45.4)
Warfarin, & salts, when present at concentrations greater than 0.3%.	81812	Ethene, 1,1-dichloro-..... 2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations greater than 0.3%.	1*	4	P001	B	100 (45.4)
Xylene.....	1330207	Benzene, dimethyl-..... Xylene (mixed)..... Xylenes (isomers and mixture).	1000	1,3,4	U239	B	100 (45.4)
m-Xylene.....	108383	Benzene, m-dimethyl-.....	1*	3	.....	C	1000 (454)
o-Xylene.....	95476	Benzene, o-dimethyl-.....	1*	3	.....	C	1000 (454)
p-Xylene.....	106423	Benzene, p-dimethyl-.....	1*	3	.....	B	100 (45.4)
Xylene (mixed).....	1330207	Benzene, dimethyl-..... Xylene..... Xylenes (isomers and mixture).	1000	1,3,4	U239	B	100 (45.4)
Xylenes (isomers and mixture).....	1330207	Benzene, dimethyl-..... Xylene..... Xylene (mixed).....	1000	1,3,4	U239	B	100 (45.4)
Xylenol.....	1300716	.....	1000	1	.....	C	1000 (454)
Yohimban-16-carboxylic acid,11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester (3beta,16beta,17alpha,18beta,20alpha)-.....	50555	Reserpine.....	1*	4	U200	D	5000 (2270)
Zinc <dagger><dagger>.....	7440666	.....	1*	2	.....	C	1000 (454)
ZINC AND COMPOUNDS.....	N.A.	.....	1*	2	.....	**	1000 (454)
Zinc acetate.....	557346	.....	1000	1	.....	C	1000 (454)
Zinc ammonium chloride.....	52628258	.....	5000	1	.....	C	1000 (454)
Zinc, bis(dimethylcarbomodithioato-S,S')-, (Ziram).	14639975	.....	1*	4	P205	.....	###
Zinc borate.....	1332076	.....	1000	1	.....	C	1000 (454)
Zinc bromide.....	7699458	.....	5000	1	.....	C	1000 (454)
Zinc carbonate.....	3486359	.....	1000	1	.....	C	1000 (454)
Zinc chloride.....	7646857	.....	5000	1	.....	C	1000 (454)
Zinc cyanide.....	557211	Zinc cyanide Zn(CN)2.....	10	1,4	P121	A	10 (4.54)
Zinc cyanide Zn(CN)2.....	557211	Zinc cyanide.....	10	1,4	P121	A	10 (4.54)
Zinc fluoride.....	7783495	.....	1000	1	.....	C	1000 (454)
Zinc formate.....	557415	.....	1000	1	.....	C	1000 (454)
Zinc hydrosulfite.....	7779864	.....	1000	1	.....	C	1000 (454)
Zinc nitrate.....	7779886	.....	5000	1	.....	C	1000 (454)
Zinc phenosulfonate.....	127822	.....	5000	1	.....	D	5000 (2270)
Zinc phosphide.....	1314847	Zinc phosphide Zn<INF>3</INF>P<INF>2</INF>, 1000 1,4 P122	P<INF>2</INF>	1000 1,4	P122	B	100 (45.4)

Hazardous substance	CASRN	Regulatory synonyms	Statutory			Final RQ		
			RQ	Code <dagger>	RCRA waste Number	Category	Pounds (Kg)	
when present at concentrations greater than 10%.								
Zinc phosphide Zn<INF>3</INF> P<INF>2</INF>, when present at concentrations greater than 10%.		1314847	Zinc phosphide.	1000	1,4	P122	B	100 (45.4)
Zinc silicofluoride.....	16871719		5000	1			D	5000 (2270)
Zinc sulfate.....	7733020		1000	1			C	1000 (454)
Zirconium nitrate.....	13746899		5000	1			D	5000 (2270)
Zirconium potassium fluoride.....	16923958		5000	1			C	1000 (454)
Zirconium sulfate.....	14644612		5000	1			D	5000 (2270)



## **APPENDIX M**

CSWC Statewide Meeting Agenda - Example  
CSWC Statewide Meeting Minutes - Example

## CSWC Statewide Meeting Agenda - Example

**Meeting  
Agenda**

**8<sup>th</sup> Quarterly Construction Storm Water  
Coordination Meeting**

**DATE: June 5, 6, 7, 2002**

**TIME: 10:00**

**LOCATION: Holiday Inn Ventura, Ventura, CA**

**Meeting called by:** Headquarters Construction Division

**Facilitator:** Jerry Marcotte

**Scribe:** Amber Forbes

**Timekeeper:** Jerry/Don

**Members:** District Construction Storm Water Coordinators and other invited guests

**Meeting Vision:** Implement an effective and comprehensive Storm Water Program in Compliance with all Regulatory Requirements

**Please bring:** Hard Hat and vest

Time	Topic	Who Assigned Currently	Desired Outcome
10:00-10:15	Introduction to the Meeting, Action Items from last meeting and their status	Jerry Marcotte	Provide an overview of the agenda and meeting process. Distribution of last quarterly meeting minutes.
10:15-10:30	Staff Introductions	ALL	
10:30-10:50	02/03 Annual Construction Compliance Review Plan	Tom Huff	
10:50-11:45	SWTF site appeal process	Tom Huff	
11:45-12:45	Lunch	ALL	
12:45-2:00	Districts Updates	All District SWCs	10 minutes for each District
2:00-3:00	Santa Ana RWQCB – Perspective on Caltrans Construction Compliance	Bob Whitter – RWQCB	How Caltrans can Improve.
3:00 –3:15	Break	ALL	
3:15-4:00	Draft SAP Training Material	Jerry Marcotte/ Mel Mathews/ Michael Kolbensschlag	
4:00– 4:15	Training Schedule - Advanced BMP	Jerry Marcotte/ Mel Mathews	
4:15-5:00	FY 02/03 - RE & Inspection Training	Jerry Marcotte/Mel Mathews	
5:00	Adjourn		

<b>Time</b>	<b>Topic</b>	<b>Who Assigned Currently</b>	<b>Desired Outcome</b>
<i>June 6 – Day 2</i>			
8:00-9:00	Introduction to Site Visit	James Burt	
9:00-12:00	Visit Project 07-117044 – Pleasant Valley Interchange Rt 1	James Burt	All visit construction site.
12:00-1:00	Lunch		
1:00-1:15	Status of SSPs 07-340 & 07-345	Don Chin	
1:15-1:30	Contractor Training Outline	Don Chin	
1:30-2:00	Temp. Move in/ Move out	Jerry Marcotte	
2:00-2:30			OPEN
2:30-2:45	Break		
2:45-3:45	Boca Project - Contractor Training	Kirk Carrington/ Jerry Marcotte	
3:45-5:00	Update to the BMP and SWPPP Manual	Jerry Marcotte/ Ed Othmer	
5:00	Adjourn		
<i>June 7 - Day 3</i>			
8:00-8:30	Construction SWAT/ WQ SWAT Interaction	Jerry Marcotte	
8:30-9:00	New Project Planning Design Guide	Gary Garofalo	
9:00-10:00	Draft Field Guidance Manual – Traffic Ops	Walter Kumin	CSWC Involvement in Traffic Ops program.
10:00-10:15	Break		
10:15-10:45	SPWWW – Enforcement (Plans and Specifications)	Jerry Marcotte	
10:15-11:30	Temporary Non-Vegetative Soil Stabilization Study for 2000-2001 Season	Tim Cusher – Geomatrix	
11:30-12:30	Lunch		
12:30-1:30	Update PCC and Chromium +6 Update	Jerry Marcotte	
1:30-2:00	Wrap-up, Action Items and Scheduling next meeting	Group	
2:00	Adjourn	ALL	Have a nice weekend.

## CSWC Statewide Meeting Minutes - Example

Eighth Quarterly Construction Storm Water Coordinators Meeting  
June 5-7, 2002  
Ventura

## **ACTION ITEMS**

<b>Who</b>	<b>What</b>	<b>When</b>
1. DSWC	*review ACCRP and give it back with comments. cc Kenny on the comments.	
2. DSWC	*e-mail form for appeal inspections	Fri. June 14
3. Jerry	*standardize reporting document, (ex. how districts do appeals). Get ideas to Tom Huff	
4. DSWC	*attach appeal forms to inspection forms	
5. Jerry	*A+, B+ contract, minimum maximum dollar amount for CSWPPP and percentage, needs to go to designers.	
6. Jerry	*insert a statement into all contracts that Caltrans will be able to go onto offsite yards and inspect. Need to define what would be Caltrans responsibility? The SWPPP should include offsite areas.	
7. H.Q.	*investigate discharges under Water Pollution Control Plan	
8. DSWC	*send in numbers from all training to H.Q.	
9. DSWC	*get comments to Mel for the SAP power point shown at the meeting.	Fri. June 28
10. Mel	*abbreviate power point version.	
11. H.Q.	*interface with landscape at H.Q., Dan Peterson, to determine what the use for DSA requirements are, and what is the standard? What are the calculations for DSA, and the calculations for structures?	
12. Jim	*review the one page memo/list from landscape that talks about DSA's.	
13. Jerry	*review PPDG board for DSA requirements for structures and landscape.	

14. H.Q. \*include new language in the 07-745 and 07-340 specs.
15. Kenny \*bring to next meeting the report that Caltrans, Granite and SWTF put together.
16. DSWC \*send in comments for hydroseeding
17. H.Q. \*compare desilting basin design manual for consistency with BMPs.
18. H.Q. \* need to check with design for sediment desilting basin design for active volume.
19. DSWC \*give comments about the check dam figures, check wording
20. H.Q. \*determine if certificate of compliance can be utilized for temporary BMPs.
21. H.Q. \*research triangular foam barrier
22. H.Q. \*BMP SC-9 needs to reference straw and the differences in straw.
23. DSWC \*review 2nd revision of BMP manual 3 weeks
24. H.Q. \*keep communication open with the PDSWAT, DSWC, WQSWAT/NPDES Staff and Construction SWAT. Need to have a representative from this meeting go to other meetings to represent DSWC's.
25. H.Q. \*construction headquarters needs to participate in construction SWAT.
26. H.Q. \*look into invitation to the PDSWAT meetings for DSWC.
27. H.Q. \*funding needs to be added for travel to the PDSWAT meetings.
28. H.Q. \*H.Q. needs more control for funding
29. H.Q. \*evaluate existing report allocations of funding and respond to districts for fundamentals for construction.
30. Gary G. \*get schedule from training and get invitations to DSWC for training.

- 31. Gary G.           \*put DSA requirements in PPDG.
- 32. DSWC            \*follow up with Gary on invitations and training schedules.
- 33. Walter K.        \*draft of the guidance manual should be on FTP site in two weeks or so. Comments after first draft from DSWC.
- 32. Walter K.        \*middle of June for the NOI and NOC tables
- 33. DSWC, H.Q.     \*need to have more communication with district structure chiefs regarding enforcement issues.
- 34. H.Q.            \*make up a survey with comments and responses to terms of enforcement with the SWC role.
- 35. H.Q.            \*ask Misty to bring more information about soil stabilization study to next meeting.
- 36. H.Q.            \*check to see if CH2MHILL is doing a soil stabilization study in the desert districts.
- 37. DSWC            \*maybe districts need to see if they can collect samples and turn them into Translab to speed the process up, try and collect information about where things are coming from.
- 38. H.Q.            \*look at methodology table.
- 39. H.Q.            \*prepare a CPD for plastic liners, shuts and concrete washouts
- 40. H.Q.            \*add PCC grindings to concrete waste issue.

## **MEETING MINUTES**

**JUNE 5, 2002**

### **Changes to Headquarters – Jerry Marcotte**

- Trying to provide better organization to districts with design.
- Trying to assign Jerry, Don and Kenny to different districts to provide better support.
- Don will be Central Region and District 11; Kenny has Northern Region and District 7, and Jerry has District 8, 12 and 4.
- Kenny will be the contact for notices and fines.

## **SWTF Site Appeal Process and ACCRP – Tom Huff**

ACCRP was sent out for review and comments to Dave Sluga. We are revising the plan to include more appeal in the document. It will be sent out for a second review, and completed in August.

Tom Huff has requested a new email format for appeals. Please follow new format. D3, D4, and D7 do not report to Tom Huff about appeals, the District Storm Water Coordinators do it themselves.

Dave Santori, Ratings should have nothing to do with RE, they should be reflections of districts. Someone should come up with a new rating system for inspections so that they are not on a point system. Need to try to get design more involved.

Michael Kolbensschlag, DSWC's should not be a roadblock for the RE. The RE should be able to go around them.

Tom Huff, On the new email form for appeals there should be cc's to different people (ex. Storm Water Coordinators, seniors and NPDES coordinators of districts, etc.)

## **Status of SSPs 07-340 & 07-345 – Don Chin**

Have received signatures and oks, should be able to access new SSPs by next week.

## **Contractor Training Outline – Don Chin**

The AGC will provide comments by June 15<sup>th</sup> for training. Web based training needs to be discussed. We can back track who took the exam and store it in a database.

Jerry Marcotte, The SWPPP writer and manager only need to have training, not certification.

Don Chin, Database will take 3-6 months, should have it by January 2003. Within the next few months, we are trying to get approval for funds, and get course materials and parameters together. Requesting a \$6 million dollar contract, that has not been approved yet by legislature.

Jerry Marcotte, Add certification as a certified erosion control specialist, included with 24 hour training into SSPs, or the International Erosion Control Association provides it.

## **District Updates**

Michael Kolbensschlag, D11: Lost 1 SWPPP inspector, gained 1. There are four in construction. For SAP we use consultants. Two contractors available. Received an NOV from Regional Board on Coronado Bridge for discharging paint chips, which was actually blasting grit. Another fine for discharging into a creek from boring machine under freeway. District 11 has meetings every week for the most critical jobs. We target SWPPP jobs with the most critical SWPPP.

Yalin Wang, D4: New consultant makes five people. Paying attention to SWPPP jobs. We are sending out emails for reminders on Annual certification. There are 30 SAP plans in place.

Kirk Carrington, D3: Full time SWPPP inspectors makes 4 people full time. Hope to get eight. Two NOV's issued, one resolved by fine, the contract was terminated for the other. Working with Central Valley Water Board to clean up paving and grinding BMPs. Lahontan and Central Valley requested D3 to line pits on all jobs. Lahontan is requesting updating SAP. D3 rejected it and requested it in writing what is needed and D3 will reply.

Pete Riegelhuth D5, Central Region: 50% of work being done by Pete. Trying to train student to review SWPPPs. ONE RE and two inspectors. Training has had good turnouts. D5 was issued a letter from RWQCB for fines. NPDES is working to negotiate. Biggest problem on jobs is dust. Most SAP jobs are in place.

Walt Griffith, D8: All PCCs need to be lined. Short two positions in staff. In July might be getting a consultant, three people now. 60% of SAP contracts are approved. Looking at long range of upcoming projects. Getting involved with ADL requirements. Meeting with Lahontan Water Board for the huge project going on on the 15.

Lee Haber, D12: Got NOV from SARWQCB for one of two projects, groundwater treatment plan, discharges of untreated water. New staff member 4 people in staff. Moving into ADL projects. SAP CCO contractor wont sign, wont pay for SAP testing. NOV job testing is impractical, cant work until test comes back. Need to do in house testing so job wont be held up for 3 or 4 days. Possible quick test kits?  
Resolution – keep working until tests come back. If there is a violation stop working and turn in a report a.s.a.p.

Jerry Marcotte, next fiscal year we hope to have funding for turbidity test kits, etc.

Bob Whitaker, Offering to go onto offsite yards to inspect for Caltrans if there seems to be a problem.

Clark Davis, D1: three major SWPPPs, Organize RE and Inspector training. Wait until November for staff. Dale Sedler is gone is D2.

James Burt, D7 Lost 1 staff member. There were three responses from meeting with NRDC went over comments they had. Lack of planning and execution on contractor's part. Working on encroachment jobs with Water Board. Two and a half people on staff.

Larry Lowe, Central Region: San Miguel – doing mitigation. Had one project with vandalism. Need to address issue with contractors. Training went well with SWTF 90 inspectors, 40 RE's. In fall will have training in D9. Two staff. Wants to add more SWDC.

SARWQCB Perspective on Caltrans Construction Compliance – Bob Whitaker

Should the Water Board go directly after the contractor? We should rethink it. Need to hammer Caltrans but make sure Caltrans can back themselves up. Every Caltrans job has a deficiency.

Walt Griffith, We need to take Water Board inspectors with us on inspections.

Jerry Marcotte, Revise training about what inspectors need to be doing, and clarify they need to act on improper BMPs.

## Draft SAP Training Material – Jerry Marcotte/Mel Mathews/Michael Kolbensschlag

Mel Mathews, Need to get a tally for training for the annual report.

Jerry Marcotte, Take a model SWPPP through training classes have students work on it.

Mel Mathews, In the process of doing a survey to see what is the major concern to REs for the advanced BMP class.

Script for first training video is being edited. IT will be out soon. Second video is starting; it will focus on non-storm water issues.

## **JUNE 6, 2002**

Temporary Move-In/Move-Out – Jerry Marcotte

Jerry Marcotte, Soil Stabilization is the weakest in projects.

SSP needs more clean up language.

Lee Haber, In the new language for move-in/move-out “may” is too loose of a word, we need to use “shall expect”.

Michael Kolbensschlag, There is no downside except extra cost.

Jerry Marcotte, Districts should add temporary move-in/move-out as a line item. Try to work with designers.

Boca Project – Contractor Training – Kirk Carrington

Granite put together a 5-day training course for the Contractors and Caltrans personnel to lower a fine they had received. 15 to 20 Caltrans inspectors attended.

The money you pay to a fine goes to a Statewide Fund for clean up.

Mel Mathews, Be more specific on language in SSPs for training.

Kirk Carrington, Kenny Eickelberg, Lee Haber, and Michael Kolbensschlag are working to wrap up spec for training.

Update to the BMP and SWPPP Manual – Ed Othmer/Jerry Marcotte

We are on the 2<sup>nd</sup> revision to the BMP manual.

There is interest from WCSWAT and PDSWAT. They want to make comments.

Jerry Marcotte, The BMP manual is still consistent with the SWMP and guidelines it is just in the fine-tuning stage.

Ed Othmer, The manual should be redistributed by giving whole new document instead of inserts.

Mel Mathews, The external cover of the manual should be different colors for each year, and not match the others. It makes it to hard to identify.

James Burt, The manual should not have Water Quality Impact as a column. It is unknown.

Ed Othmer, The Water Quality Impact column will be deleted. Hydro mulch is staying in. Hydroseeding will be changed to say it needs to be reapplied depending on the seed, instead of 40 days to revegetate.

Kenny Eickelberg, “As directed by the engineer” should be after the Hydroseeding statement.

Walid Naouchi, We should call rock bags gravel bags because of the size. It should give a range of size.

DSWC, no fiber rolls for check dams.

Should sandbags be used in drainage ditches?

Mel Mathews, Sometimes

Walt Griffith, Need to make clarification to paved and unpaved.

DSWC, Leave both in and write as directed by R.E.

Mel Mathews, Need to take statement out about foam barriers.

James Burt, Need to add language to Clear Water Diversion that diversion plan must be approved by Storm Water Coordinators.

NS-11 - NS-15 are not in the manual, they are not approved by the SWMP. They should be added soon.

Ed Othmer, CDM is revising SWPPP/WPCP Prep Manual. There has been no timeline discussed yet.

Ed Othmer, Will have response to comments out by next week to all DSWC's. It will be on excel so you can see all the comments that were given about the manual and the responses. If you disagree with a comment or response, send comment back with further detail.

## **JUNE 7, 2002**

Construction SWAT/WQSWAT Interaction – Jerry Marcotte

We are trying to get funding set up for Construction SWAT meetings.

Have two slots open for funding if someone wants to fill them.

James Burt, Wherever the meeting is (ex. D7) people from D7 PDSWAT and Construction SWAT should be invited.

New Project Planning Design Guide – Gary Garofalo

Lee Haber, There is a need for department participation.

Training will be called: Temporary Erosion Control for Designers.

### **Draft Field Guidance Manual – Traffic Ops - Walter Kummin**

Lee Haber, It is missing some minimum expectations

Jerry Marcotte, Need to get a draft of the Field Guidance Manual out to the District Storm Water Coordinators.

### **SWPPP Enforcement (Plans and Specifications) – Jerry Marcotte**

DSWC need to communicate with managers for consistency in fines.

Behrooz Pirzadeh, Should be a standard policy that the RE has to listen to the DSWC.

## **Update PCC and Chromium + 6 Update – Jerry Marcotte**

Translab will sample 20 different types of chromium 6.

They will finish by the end of June maybe a little longer. (Task Order 13)

Second phase

They will collect samples from PCC batch plants and PCC grinding operations.

We are trying to find funding. Probably wont happen until July or August (Task Order 12)

Avoid the use of grinding in unlined ditches and the use of offsite disposal.

## **Wrap-up**

\*Decide next meeting location

- Possible Truckee or Sonora
- First week in August either the 31, 1 and 2 or 5, 6 and 7.



## **APPENDIX N**

Clean Water Act 303(d) Water Bodies Impaired Due to Sedimentation/Siltation or Turbidity

REGION	WATER BODY NAME	CODE	POLLUTANT
1	MATTOLE RIVER	1100	Sedimentation/Siltation
1	TRINITY RIVER, SOUTH FORK	1100	Sedimentation/Siltation
1	REDWOOD CREEK	1100	Sedimentation/Siltation
1	MAD RIVER	1100	Sedimentation/Siltation
1	ELK RIVER	1100	Sedimentation/Siltation
1	EEL RIVER, SOUTH FORK	1100	Sedimentation/Siltation
1	EEL RIVER, NORTH FORK	1100	Sedimentation/Siltation
1	TRINITY RIVER	1100	Sedimentation/Siltation
1	EEL RIVER, MIDDLE FORK	1100	Sedimentation/Siltation
1	MAD RIVER	2500	Turbidity
1	TEN MILE RIVER	1100	Sedimentation/Siltation
1	NOYO RIVER	1100	Sedimentation/Siltation
1	BIG RIVER	1100	Sedimentation/Siltation
1	ALBION RIVER	1100	Sedimentation/Siltation
1	NAVARRO RIVER	1100	Sedimentation/Siltation
1	GARCIA RIVER	1100	Sedimentation/Siltation
1	GUALALA RIVER	1100	Sedimentation/Siltation
1	RUSSIAN RIVER	1100	Sedimentation/Siltation
1	TOMKI CREEK	1100	Sedimentation/Siltation
1	VAN DUZEN RIVER	1100	Sedimentation/Siltation
1	EEL RIVER DELTA	1100	Sedimentation/Siltation
1	EEL RIVER, MIDDLE MAIN FORK	1100	Sedimentation/Siltation
1	ESTERO AMERICANO	1100	Sedimentation/Siltation
1	NAVARRO RIVER DELTA	1100	Sedimentation/Siltation
1	EEL RIVER, UPPER MAIN FORK	1100	Sedimentation/Siltation
1	FRESHWATER CREEK	1100	Sedimentation/Siltation
1	SCOTT RIVER	1100	Sedimentation/Siltation
2	TOMALES BAY	1100	Sedimentation/Siltation
2	NAPA RIVER	1100	Sedimentation/Siltation
2	SONOMA CREEK	1100	Sedimentation/Siltation
2	PETALUMA RIVER	1100	Sedimentation/Siltation
2	LAGUNITAS CREEK	1100	Sedimentation/Siltation
2	WALKER CREEK	1100	Sedimentation/Siltation
2	SAN GREGORIO CREEK	1100	Sedimentation/Siltation
2	SAN FRANCISQUITO CREEK	1100	Sedimentation/Siltation

REGION	WATER BODY NAME	CODE	POLLUTANT
2	PESCADERO CREEK (REG 2)	1100	Sedimentation/Siltation
2	BUTANO CREEK	1100	Sedimentation/Siltation
3	MORRO BAY	1100	Sedimentation/Siltation
3	SAN LORENZO RIVER ESTUARY	1100	Sedimentation/Siltation
3	SHINGLE MILL CREEK	1100	Sedimentation/Siltation
3	MOSS LANDING HARBOR	1100	Sedimentation/Siltation
3	WATSONVILLE SLOUGH	1100	Sedimentation/Siltation
3	SAN LORENZO RIVER	1100	Sedimentation/Siltation
3	ELKHORN SLOUGH	1100	Sedimentation/Siltation
3	SALINAS RIVER LAGOON (NORTH)	1100	Sedimentation/Siltation
3	GOLETA SLOUGH/ESTUARY	1100	Sedimentation/Siltation
3	CARPINTERIA MARSH (EL ESTERO MARSH)	1100	Sedimentation/Siltation
3	LOMPICO CREEK	1100	Sedimentation/Siltation
3	MORO COJO SLOUGH	1100	Sedimentation/Siltation
3	VALENCIA CREEK	1100	Sedimentation/Siltation
3	PAJARO RIVER	1100	Sedimentation/Siltation
3	RIDER GULCH CREEK	1100	Sedimentation/Siltation
3	LLAGAS CREEK	1100	Sedimentation/Siltation
3	SAN BENITO RIVER	1100	Sedimentation/Siltation
3	SALINAS RIVER	1100	Sedimentation/Siltation
3	CHORRO CREEK	1100	Sedimentation/Siltation
3	LOS OSOS CREEK	1100	Sedimentation/Siltation
3	SANTA YNEZ RIVER	1100	Sedimentation/Siltation
3	SAN ANTONIO CREEK (SANTA BARBARA COUNTY)	1100	Sedimentation/Siltation
3	CARBONERA CREEK	1100	Sedimentation/Siltation
3	SOQUEL LAGOON	1100	Sedimentation/Siltation
3	APTOS CREEK	1100	Sedimentation/Siltation
4	MUGU LAGOON	1100	Sedimentation/Siltation
5	HUMBUG CREEK	1100	Sedimentation/Siltation
5	PANOCH CREEK	1100	Sedimentation/Siltation
5	FALL RIVER (PIT)	1100	Sedimentation/Siltation
6	BEAR CREEK (R6)	1100	Sedimentation/Siltation
6	MILL CREEK (3)	1100	Sedimentation/Siltation
6	HORSESHOE LAKE (2)	1100	Sedimentation/Siltation

REGION	WATER BODY NAME	CODE	POLLUTANT
6	BRIDGEPORT RES	1100	Sedimentation/Siltation
6	TOPAZ LAKE	1100	Sedimentation/Siltation
6	LAKE TAHOE	1100	Sedimentation/Siltation
6	PINE CREEK (2)	1100	Sedimentation/Siltation
6	TRUCKEE RIVER	1100	Sedimentation/Siltation
6	CLEARWATER CREEK	1100	Sedimentation/Siltation
6	GRAY CREEK (R6)	1100	Sedimentation/Siltation
6	WARD CREEK	1100	Sedimentation/Siltation
6	BLACKWOOD CREEK	1100	Sedimentation/Siltation
6	GOODALE CREEK	1100	Sedimentation/Siltation
6	EAST WALKER RIVER	1100	Sedimentation/Siltation
6	HEAVENLY VALLEY CREEK	1100	Sedimentation/Siltation
6	WOLF CREEK (1)	1100	Sedimentation/Siltation
6	WEST WALKER RIVER	1100	Sedimentation/Siltation
6	HOT SPRINGS CANYON CREEK	1100	Sedimentation/Siltation
6	BRONCO CREEK	1100	Sedimentation/Siltation
6	SQUAW CREEK	1100	Sedimentation/Siltation
7	IMPERIAL VALLEY DRAINS	1100	Sedimentation/Siltation
7	NEW RIVER (R7)	1100	Sedimentation/Siltation
7	ALAMO RIVER	1100	Sedimentation/Siltation
8	SAN DIEGO CREEK, REACH 1	1100	Sedimentation/Siltation
8	RATHBONE (RATHBUN) CREEK	1100	Sedimentation/Siltation
8	SAN DIEGO CREEK, REACH 2	1100	Sedimentation/Siltation
8	UPPER NEWPORT BAY ECOLOGICAL RESERVE	1100	Sedimentation/Siltation
8	BIG BEAR LAKE	1100	Sedimentation/Siltation
8	EL SINORE, LAKE	1100	Sedimentation/Siltation
9	SAN ELIJO LAGOON	1100	Sedimentation/Siltation
9	LOS PENASQUITOS LAGOON	1100	Sedimentation/Siltation
9	AGUA HEDIONDA LAGOON	1100	Sedimentation/Siltation
9	BUENA VISTA LAGOON	1100	Sedimentation/Siltation



## **APPENDIX O**

List of Internet Websites

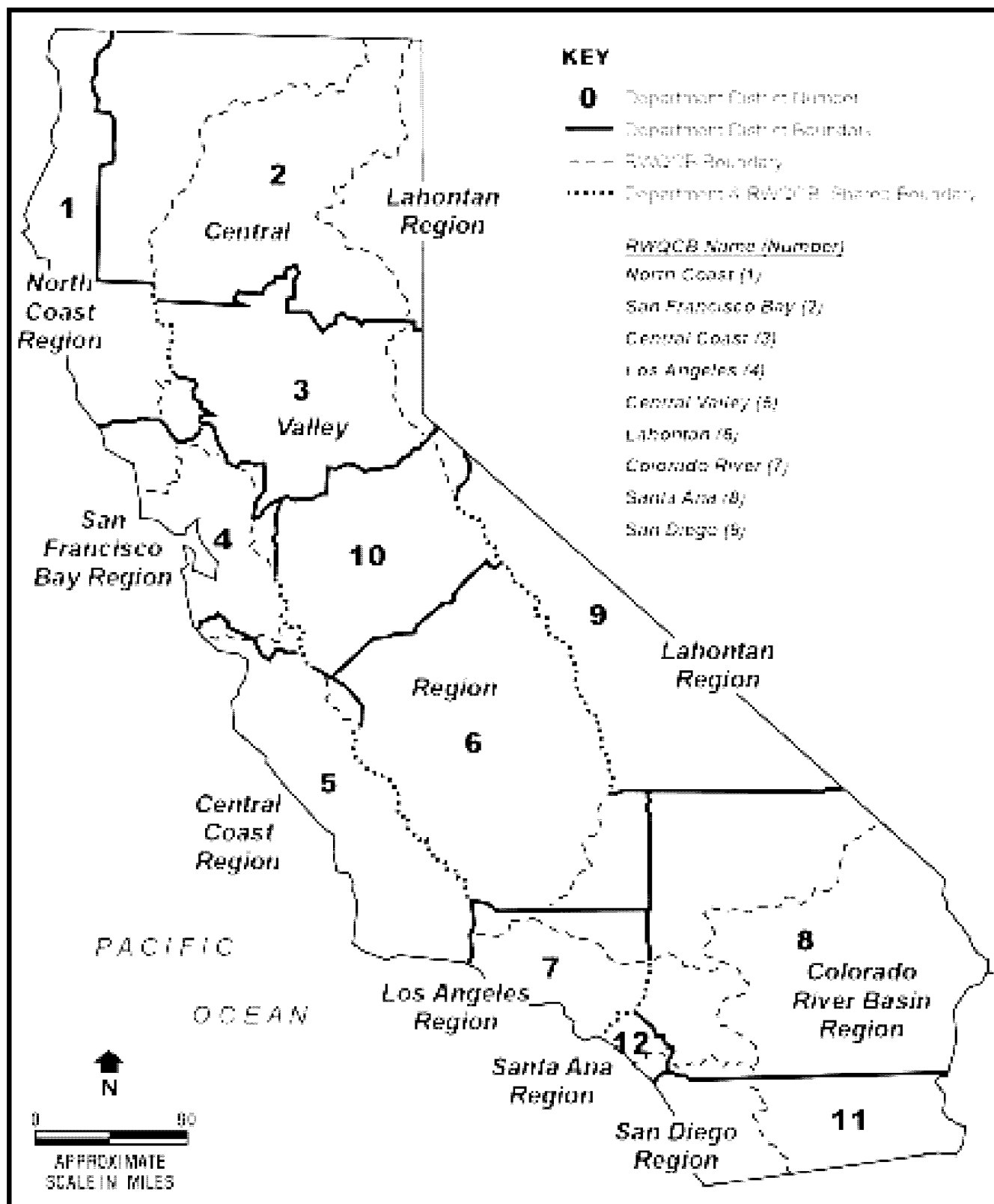
<b>Web Site</b>	<b>Internet Address</b>
Construction Manual	<a href="http://www.dot.ca.gov/hq/construc/manual2001">http://www.dot.ca.gov/hq/construc/manual2001</a>
Storm Water Management Plan (SWMP)	<a href="http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm">http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm</a>
	<a href="http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm">http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm</a>
Statement of Going Contracts	<a href="http://www.dot.ca.gov/hq/construc/statement.html">http://www.dot.ca.gov/hq/construc/statement.html</a>
	<a href="http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm">http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm</a>
Weather Channel	<a href="http://www.weather.com/outlook/travel/local/USCA1016?x=13&amp;GO=GO&amp;whatprefs=WeatherLocalTravel&amp;y=11">http://www.weather.com/outlook/travel/local/USCA1016?x=13&amp;GO=GO&amp;whatprefs=WeatherLocalTravel&amp;y=11</a>
The NPDES Permit for Discharges of Storm Water Runoff Associated with Construction Activity Involving Land Disturbance in the Lake Tahoe Hydrologic Unit - El Dorado, Placer, and Alpine Counties	<a href="http://www.swrcb.ca.gov/rwqcb6/files/00-03.pdf">http://www.swrcb.ca.gov/rwqcb6/files/00-03.pdf</a> .
Construction Program procedure Bulletins	<a href="http://www.dot.ca.gov/hq/construc/cpb/cpbindx.htm">http://www.dot.ca.gov/hq/construc/cpb/cpbindx.htm</a>
Standard Special Provisions	<a href="ftp://trescftp.dot.ca.gov/">ftp://trescftp.dot.ca.gov/</a>
	<a href="http://www.dot.ca.gov/hq/esc/oe/specs_html/index.html">http://www.dot.ca.gov/hq/esc/oe/specs_html/index.html</a>
Standard Special Provisions for SWPPP Water Pollution Control	<a href="http://www.dot.ca.gov/hq/esc/oe/specifications/SSP%27s/99-SSPs/Updates/2002-07%20updates/07-345_A07-26-02.doc">http://www.dot.ca.gov/hq/esc/oe/specifications/SSP%27s/99-SSPs/Updates/2002-07%20updates/07-345_A07-26-02.doc</a>
Standard Special Provisions for WPCP Water Pollution Control	<a href="http://www.dot.ca.gov/hq/esc/oe/specifications/SSP%27s/99-SSPs/Updates/2002-07%20updates/07-340_A07-26-02.doc">http://www.dot.ca.gov/hq/esc/oe/specifications/SSP%27s/99-SSPs/Updates/2002-07%20updates/07-340_A07-26-02.doc</a>
Dewatering Guide	<a href="http://www.dot.ca.gov/hq/construc/DewateringGuide.htm">http://www.dot.ca.gov/hq/construc/DewateringGuide.htm</a> .
Construction Manual	<a href="http://www.dot.ca.gov/hq/construc/manual2001/">http://www.dot.ca.gov/hq/construc/manual2001/</a>
National Weather Service	<a href="http://www.nws.noaa.gov/">http://www.nws.noaa.gov/</a>
Notice of Completion of Construction (NCC) Form:	<a href="http://www.dot.ca.gov/hq/construc/cpb/CEM2003.pdf">http://www.dot.ca.gov/hq/construc/cpb/CEM2003.pdf</a>
Caltrans Electronic Forms System	<a href="http://adsc.caltrans.ca.gov/CEFS/">http://adsc.caltrans.ca.gov/CEFS/</a>
	<a href="http://babycray2.caltrans.ca.gov/hq/construc/cpbindx.htm">http://babycray2.caltrans.ca.gov/hq/construc/cpbindx.htm</a>
Department of Toxic Substances Control (DTSC) Aerially Deposited Lead (ADL) Variances:	<a href="http://www.dot.ca.gov/hq/env/haz/index.htm">http://www.dot.ca.gov/hq/env/haz/index.htm</a>
2001 General Construction NPDES Permit Modification	<a href="http://www.swrcb.ca.gov/stormwtr/construction.html">http://www.swrcb.ca.gov/stormwtr/construction.html</a>
Section 600 of the Highway Design Manual	<a href="http://www.dot.ca.gov/hq/oppd/hdm/pdf/chp0600.pdf">http://www.dot.ca.gov/hq/oppd/hdm/pdf/chp0600.pdf</a>
Contractor Training Information:	<a href="http://www.dot.ca.gov/hq/construc/swppp_training.html">http://www.dot.ca.gov/hq/construc/swppp_training.html</a>
Regional Work Plans	<a href="http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm">http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm</a>
Basin Sizer Tool	<a href="http://www.stormwater.water-programs.com/BasinSizer/BasinSizer.htm">http://www.stormwater.water-programs.com/BasinSizer/BasinSizer.htm</a>

<b>Web Site</b>	<b>Internet Address</b>
	<a href="http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=40&amp;PART=302&amp;SECTION=4&amp;YEAR=2001&amp;TYPE=TEXT">http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=40&amp;PART=302&amp;SECTION=4&amp;YEAR=2001&amp;TYPE=TEXT</a>
Sample Sampling and Analysis Plans	<a href="http://www.dot.ca.gov/hq/construc/swpp_saps.htm">http://www.dot.ca.gov/hq/construc/swpp_saps.htm</a>
Pollutant Testing Guidance Table:	<a href="http://www.dot.ca.gov/hq/construc/swppp_saps.htm">http://www.dot.ca.gov/hq/construc/swppp_saps.htm</a>
Construction Program Directive (CPD) 01-07	<a href="http://www.dot.ca.gov/hq/construc/sample_analysis_bulletin.doc">http://www.dot.ca.gov/hq/construc/sample_analysis_bulletin.doc</a>
Water Quality Planning Tool	<a href="http://www.stormwater.water-programs.com/Webctswpfinal/Indexfinal.htm">http://www.stormwater.water-programs.com/Webctswpfinal/Indexfinal.htm</a>
Annual Report	<a href="http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm">http://www.dot.ca.gov/hq/env/stormwater/annual_report/index.htm</a>
Highway Design Manual	<a href="http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm">http://www.dot.ca.gov/hq/oppd/hdm/hdmtoc.htm</a>



## **APPENDIX P**

Map of Caltrans Districts and RWQCB Regional Boundaries

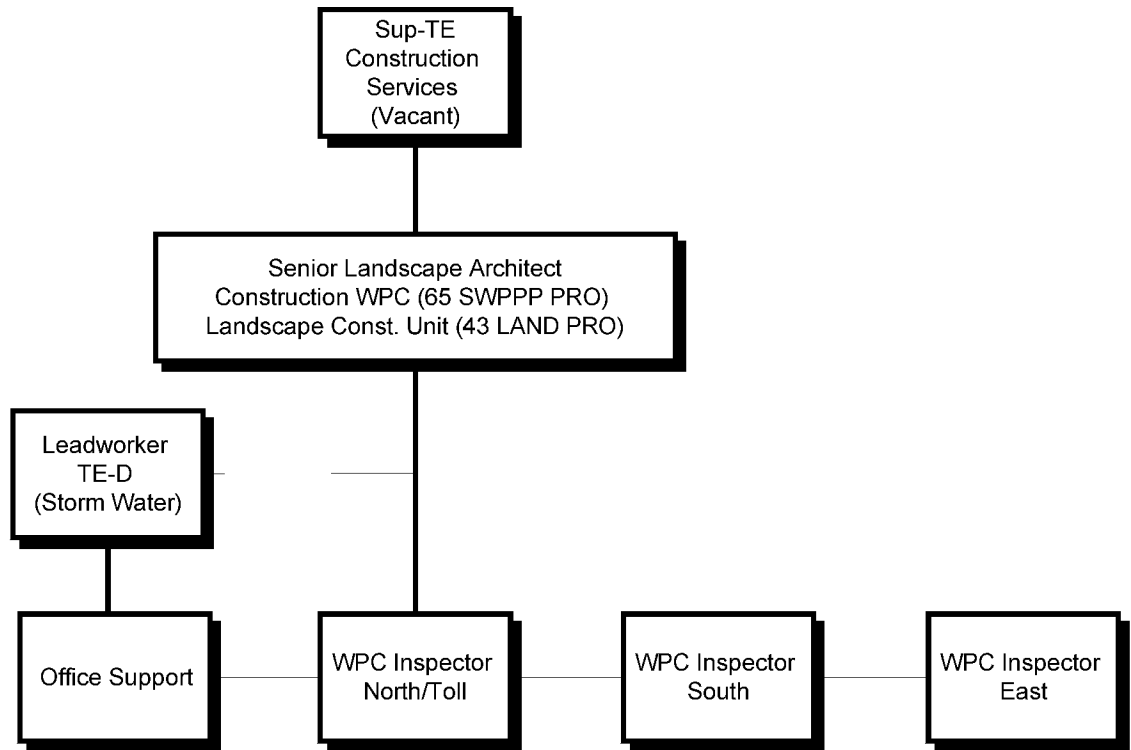




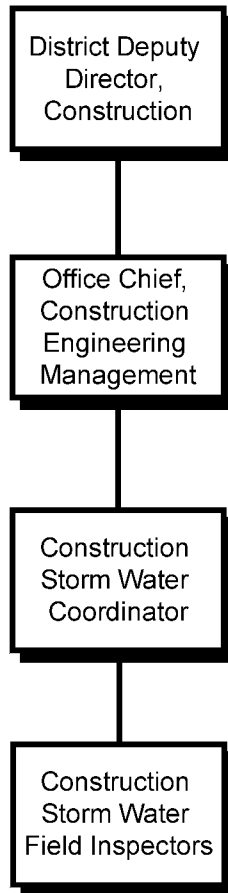
## **APPENDIX Q**

Sample District Storm Water Team Organization Charts

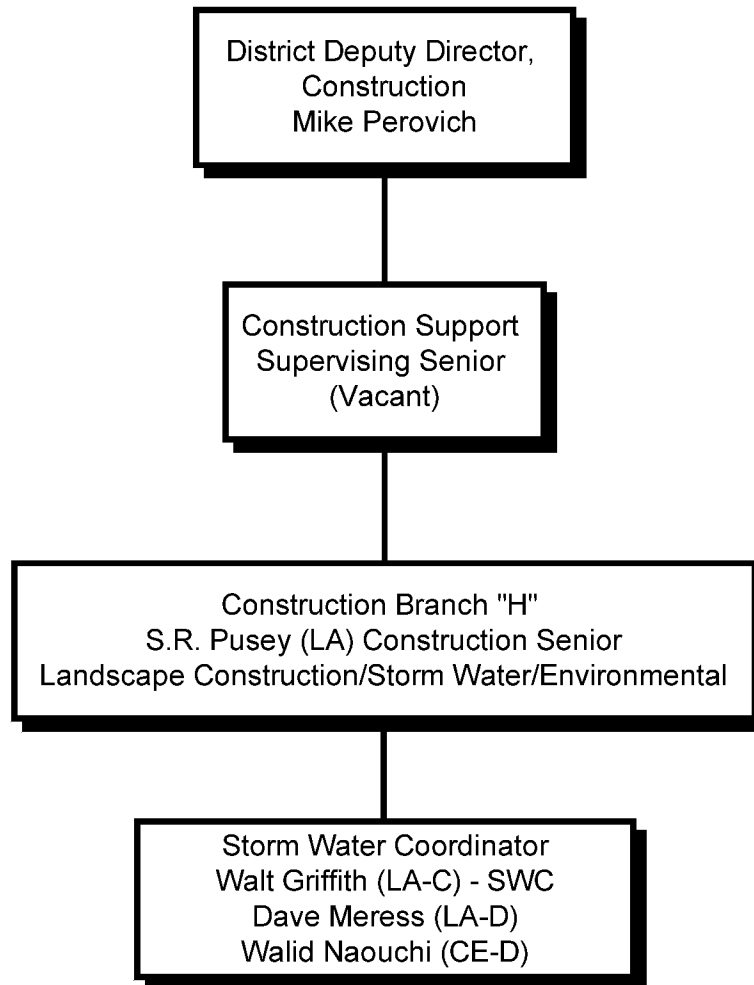
District 4  
Storm Water Team Organization



District 7  
Storm Water Team Organization



District 8  
Storm Water Team Organization





# **APPENDIX R**

Highway Design Manual Tables

Figure 819.2A

**Runoff Coefficients for Undeveloped Areas**  
Watershed Types

	Extreme	High	Normal	Low
Relief	.28-.35 Steep, rugged terrain with average slopes above 30%.	.20-.28 Hilly, with average slopes of 10 to 30%.	.14-.20 Rolling, with average slopes of 5 to 10%.	.08-.14 Relatively flat land, with average slopes of 0 to 5%.
Soil Infiltration	.12-.16 No effective soil cover, either rock or thin soil mantle of negligible infiltration capacity.	.08-.12 Slow to take up water; clay or shallow loam soils of low infiltration capacity, imperfectly or poorly drained.	.06-.08 Normal; well drained light or medium textured soils, sandy loams, silt and silt loams.	.04-.06 High; deep sand or other soil that takes up water readily, very light well drained soils.
Vegetal Cover	.12-.16 No effective plant cover, bare or very sparse cover.	.08-.12 Poor to fair; clean cultivation crops, or poor natural cover, less than 20% of drainage area over good cover.	.06-.08 Fair to good; about 50% of area in good grassland or woodland, not more than 50% of area in cultivated crops.	.04-.06 Good to excellent; about 90% of drainage area in good grassland, woodland or equivalent cover.
Surface Storage	.10-.12 Negligible surface depression; few and shallow; drainageways steep and small, no marshes.	.08-.10 Low; well defined system of small drainageways; no ponds or marshes.	.06-.08 Normal; considerable surface depression; storage; lakes and pond marshes.	.04-.06 High; surface storage, high; drainage system not sharply defined; large flood plain storage or large number of ponds or marshes.
Given	An undeveloped watershed consisting of: 1) rolling terrain with average slopes of 5%, 2) clay type soils, 3) good grassland area, and 4) normal surface depressions.		Solution:	
			Relief	0.14
			Soil Infiltration	0.08
			Vegetal Cover	0.04
			Surface Storage	<u>0.06</u>
			C	0.32
Find	The runoff coefficient, C, for the above watershed.			

**Table 819.2B**  
**Runoff Coefficients for**  
**Developed Areas**

Type of Drainage Area	Runoff Coefficient
Business:	
Downtown areas	0.70 - 0.95
Neighborhood areas	0.50 - 0.70
Residential:	
Single-family areas	0.30 - 0.50
Multi-units, detached	0.40 - 0.60
Multi-units, attached	0.60 - 0.75
Suburban	0.25 - 0.40
Apartment dwelling areas	0.50 - 0.70
Industrial:	
Light areas	0.50 - 0.80
Heavy areas	0.60 - 0.90
Parks, cemeteries:	0.10 - 0.25
Playgrounds:	0.20 - 0.40
Railroad yard areas:	0.20 - 0.40
Unimproved areas:	0.10 - 0.30
Lawns:	
Sandy soil, flat, 2%"	0.05 - 0.10
Sandy soil, average, 2-7%"	0.10 - 0.15
Sandy soil, steep, 7%"	0.15 - 0.20
Heavy soil, flat, 2%"	0.13 - 0.17
Heavy soil, average, 2-7%"	0.18 - 0.25
Heavy soil, steep, 7%"	0.25 - 0.35
Streets:	
Asphaltic	0.70 - 0.95
Concrete	0.80 - 0.95
Brick	0.70 - 0.85
Drives and walks	0.75 - 0.85
Roofs:	0.75 - 0.95

The Regional Flood-Frequency equations are applicable only to sites within the flood-frequency regions for which they were derived and on streams with virtually natural flows. For example, the equations are not generally applicable to small basins on the floor of the Sacramento and San Joaquin Valleys as the annual peak data which are the basis for the regression analysis were obtained principally in the adjacent mountain and foothill areas. Likewise, the equations are not directly applicable to streams in urban areas affected substantially by urban development. In urban areas the equations may be used to estimate peak discharge values under natural conditions and then by use of the techniques described in the publication of HDS No. 2, adjust the discharge values to compensate for urbanization. Further limitations on the use of USGS Regional Flood-Frequency equations are:

Region	Drainage Area (A) mi <sup>2</sup>	Mean Annual Precip (P) in.	Altitude Index (H) 1000 ft.
North Coast	0.2-3000	19-164	1.0-5.7
Northeast	0.2-25	all	all
Sierra	0.2-9000	7-85	0.1-9.7
Central Coast	0.2-4000	8-52	0.1-2.4
South Lahontan- Colorado Desert	0.2-25	all	all

**Note: Values shown in table have not been converted to metric system.**



## **APPENDIX S**

Water Pollution Control for PS&E - Review Guidelines for Consultant Oversight

## **Water Pollution Control for PS&E Review Guidelines for Consultant Oversight**

### **General:**

#### **For all projects:**

- 1) All projects where construction activities create soil disturbance and have a potential to pollute, temporary control practices will be considered.
- 2) All projects will require some form of Water Pollution Control. Include provisions for either Storm Water Pollution Prevention Plan (SWPPP-SSP 7.345) or Water Pollution Control Program (WPCP-SSP 7.346) (described herein).
- 3) All projects where there is soil disturbance will require erosion control (described elsewhere).
- 4) Consider erosion control to be 'permanent' erosion control. Consider 'temporary' erosion control, as well as other temporary practices, to be a component of Water Pollution Control.
- 5) Coordinate the design of the water pollution control (temporary practices) with the design for the permanent erosion controls.

### **Reviews:**

At the various reviews, recommendations can be made based upon the completion of the package. At the Project Report (PR, PSR) stage, efforts must be made to include provisions and estimates for erosion and water pollution control work. The OLA-Erosion Control Unit can provide rough costs.

#### **35% PS&E Review:**

Without special provisions, it is difficult to evaluate if the proposed water pollution control or erosion control is adequate. However, review of the typical cross sections, contour grading plans, layout plans, drainage plans, and details, it is usually possible to recommend the water pollution control document (SWPPP or WPCP).

As per NPDES CAS000002 Permit, projects with 2 hectares or more disturbed soil area require a Storm Water Pollution Prevention Plan (SWPPP). Occasionally, smaller projects that are adjacent to environmentally sensitive areas will require a SWPPP as well. All other projects will require a Water Pollution Control Program (WPCP).

- a) Verify that the appropriate water pollution control document is specified (SSP 7-345 for SWPPP or SSP 7-346 for WPCP).
- b) If a SWPPP (SSP 7-345) is required, the following estimate items must be included:
  - 074019 Prepare Storm Water Pollution Control Plan** (Lump Sum)
  - 074020 Water Pollution Control** (Lump Sum)
  - 066595 Water Pollution Control Maintenance Sharing**  
(Supplemental Work)  
This item may be included:
  - 066596 Additional Water Pollution Control** (Supplemental Work)

- c) Recommend water pollution control practices (BMPs) based upon projects of similar scope. List the stand alone specifications, details, and estimate items for the temporary control practices.

**65% PS&E Review:**

The plans submitted for the 65% review should show earthwork to the extent that the potential for erosion is recognizable. Construction staging should also be addressed at the 65% review.

Determine if the proposed package of temporary control practices make sense and are appropriate. If the proposed temporary control practices are not adequate or are not appropriate for the context, recommend changes. Verify that the temporary control practices presented are supported with the correct special provisions, details, quantity tables, and can be paid for by proper estimate items. If different temporary control practices are proposed for different areas or conditions, verify that these are clearly detailed and specified. In summary:

- a) Evaluate the proposed water pollution control strategy for adequacy and appropriateness and make recommendations.
- b) Review the specifications, details, and estimate items and verify that they support the selected water pollution control strategy.
- c) If a Conceptual SWPPP is available, compare the specifications, details, and estimate items in the PS&E with the deployment of the practices shown on the Water Pollution Control Drawings in the CSWPPP. The temporary control practices in the PS&E and the CSWPPP should be consistent and the quantities should be comparable.
- d) Provide sample details, SSPs, and examples.

**95% PS&E Review:**

By now, the PS&E package should be near perfect. The plans, specifications and details in the 95% package should provide a sufficient temporary control practices to protect the construction slopes and areas disturbed by construction activities from erosion and sedimentation. If not, recommend changes as suggested for the 35% and 65% reviews. In addition, review for the following:

- a) Verify quantities. Check the quantities given in the estimate and the Water Pollution Control quantity table.
- b) If the quantity of a lump sum item is given for convenience or information, check that it is noted as "For information only. See special provisions." For example, Temporary Cover is a lump sum item and any quantity in the table is for information only.
- c) Verify that the details and SSPs are current. If out of date, provide sample details, SSPs, and examples.
- d) Verify that call-outs on the plans, typical cross sections, and details are consistent with the SSPs and estimate (BEES).
- e) Review estimate and remove extraneous items.
- f) Check pay clauses in the special provisions. Verify that items paid for as lump sum in the specifications are listed as such in the estimate.
- g) Check previous reviews and comments and verify that they have been incorporated.

#### **100% and Final PS&E Review:**

At this point, the PS&E should be perfect. It should be complete, and the plans and specs should be biddable and buildable. If it is not, make the recommendations necessary as described for the 35%, 65%, and 95% reviews.

- a) Check the 95% review and verify that changes have been incorporated.
- b) Verify that changes to other portions of the project do not impact the proposed temporary control practices.
- c) Check for additional materials such as signed seal sheet, CAD Submittal Forms, Non-Standard Specification Sponsor Approval Request, water pollution control drawings, etc.

#### **Water Pollution Control:**

As with erosion control where the combination of control practices produces an effective solution against erosion, effective water pollution control relies on a combination of temporary control practices. Water Pollution Control includes soil stabilization practices, sediment control practices, sediment tracking control practices, wind erosion controls, and non-storm water management and waste management and disposal controls.

For example, temporary erosion control consisting of straw with a hydromulch of fiber and tackifier applied to the unfinished slopes provides soil stabilization. A linear barrier of temporary silt fence employed at the toe of the slope provides sediment control. Temporary drainage inlet protection would provide a secondary sediment control. Together, these water pollution control practices protect against pollution caused by the project's construction activities.

For PS&E purposes, Permanent Erosion Control shall be considered Erosion Control. Water Pollution Control including temporary erosion control, will be discussed elsewhere.

#### **PS&E Strategies for Water Pollution Control:**

The present trend is to incorporate more water pollution control practices into the PS&E. This means that there will be more details and special provision for stand alone items used as temporary controls during construction. The selection of these practices will depend upon the complexity, duration, and amount of disturbed soil area (DSA) created by the project. Not only will complex project with considerable grading and a multi-year construction schedule require more temporary practices, they will require a variety of temporary practices.

Although it is obvious that all projects are not alike, what is not obvious is that projects of the same type are not alike. Storm Damage Repair projects vary greatly as do Interchange Modification projects. It is important to study each project and match the water pollution control to the construction activities involved.

##### **1) WPCP Projects without Temporary Control Practices.**

Some projects have a minimal potential to pollute, depending upon the nature of the work. Often, these projects will create little, if any, disturbed soil area. Consequently, temporary practices for soil stabilization and sediment control will not be needed, nor will any permanent erosion control. On these projects, Minimum Requirements, described in the specifications and Storm Water Quality Handbooks will be sufficient and a Water Pollution Control Program will be the appropriate water pollution control document.

Typical projects might include A/C Overlay, some Seismic Retrofit (attaching fixtures to structures), TOS, signal and sign installation, and small Highway Planting.

- a) Provide edited SSP 07-340.
- b) Include appropriate Special and Minimum Requirements in SSP 07-340.

**2) WPCP Projects with Temporary Control Practices.**

Projects with less than 2 hectares of disturbed soil can be implemented with a WPCP. As there is some soil disturbance, permanent erosion control will be required as will temporary control practices.

These projects range from simple to moderate complexity and generally take less than a year to construct. Typical projects might include Storm Damage Repair, Slide Repair, Ramp Widening, some Seismic Retrofit (concrete and footing work), Roadway Rehabilitation, Slab Replacement, and Highway Planting.

Occasionally, the project will not disturb any soil or slopes but will have considerable concrete work. On these projects, a Temporary Concrete Washout Facility may be the only temporary control practice added as a separate item.

- a) Provide edited SSP 07-340.
- b) Include appropriate Special and Minimum Requirements in SSP 07-340.
- c) Provide appropriate Temporary Control Practices. Include detail, special provisions quantities, and estimate items.
- d) If warranted, provide permanent erosion control PS&E.

**3) Moderate SWPPP Projects with Temporary Control Practices.**

Projects with more than 2 hectares of disturbed soil require a Storm Water Pollution Prevention Plan. As there is soil disturbance, permanent erosion control will be required as will temporary control practices.

These are projects of moderate complexity which are likely to have a few construction stages, layout plans, drainage plans and some contour grading plans and a duration of about one year. Generally, these have a moderate amount of earthwork and include small widening projects, small interchange modifications, construction of a single structure such as a soundwall, box culvert, small bridge or retaining wall. Typical projects might include Storm Damage Repair, Slide Repair, Ramp Widening, moderate Seismic Retrofit (concrete and footing work), moderate Interchange Modification, and large Highway Planting.

For example, a moderate interchange modification project will likely consist of some contour grading, drainage work, some ramp widening, and construction of a structure such as a soundwall. Temporary control practices would typically consist of Temporary Concrete Washout Facility, Temporary Silt Fence, Temporary Cover, Temporary Entrance Exits, and Temporary Drainage Inlet Protection. Temporary Erosion Control (straw & tack) and Temporary Rock Bag Check Dam might be considered. Permanent control such as Fiber Roll Check Dams and Erosion Control Blanket could be considered as well.

- a) Provide edited SSP 07-345.
- b) Include appropriate Special and Minimum Requirements in SSP 07-345.
- c) Include estimate items associated with SSP 07-345:

**Prepare Storm Water Pollution Control Plan** (Lump Sum)

**Water Pollution Control** (Lump Sum)

**Water Pollution Control Maintenance Sharing** (Supplemental Work)

**Additional Water Pollution Control** (Supplemental Work)

- d) Provide appropriate Temporary Control Practices. Include detail, special provisions quantities, and estimate items.

- e) Include quantity tables
- f) Provide water pollution control drawings for information handout.
- g) Provide permanent erosion control PS&E.

**4) Complex SWPPP Projects with Temporary Control Practices.**

Projects with more than 2 hectares of disturbed soil require a Storm Water Pollution Prevention Plan. As there is soil disturbance, permanent erosion control will be required as will temporary control practices.

These are complex projects which generally have several construction stages, several plan sheets which include several Layout Plans, Drainage Plans, and Contour Grading Plans, and Structures Plans. Complex projects will often have temporary alignments, temporary ramps, considerable earthwork, and a duration of several years. The constraints of building in an urban area will often make otherwise moderate projects into complex projects. Projects become complex when they are constructed near, or impact, environmentally sensitive areas (ESAs), including riparian areas, wetlands, creeks, rivers, lakes or the coast.

Typical projects might include Freeway Widening, major Seismic Retrofit (earthwork, concrete and footing work), major Interchange Modification (new overpass), and Construct New Freeway.

For example, a complex interchange modification project will likely consist of extensive contour grading, drainage work, ramp widening and realignment, and construction of a new overpass structure, and demolition of the old structure. Temporary control practices would typically consist of Temporary Concrete Washout Facility, Temporary Silt Fence, Temporary Cover, Temporary Entrance Exits, and Temporary Drainage Inlet Protection, Temporary Erosion Control (straw & tack), Temporary Rock Bag Check Dam, and Move In Move Out (Erosion Control). If ESAs are involved, include an ESA spec, Temporary Fence (Type ESA), Temporary Straw Bale Barrier, Dewatering, Non-Storm Water Discharges, and Temporary Creek Dewatering System should be considered if appropriate. Permanent control such as Fiber Roll Check Dams and Erosion Control Blanket Drain Inlet Protection, Outfall Protections, could be considered as well.

- a) Provide edited SSP 07-345.
- b) Include appropriate Special and Minimum Requirements in SSP 07-345.
- c) Include estimate items associated with SSP 07-345:
  - Prepare Storm Water Pollution Control Plan** (Lump Sum)
  - Water Pollution Control** (Lump Sum)
  - Water Pollution Control Maintenance Sharing** (Supplemental Work)
  - Additional Water Pollution Control** (Supplemental Work)
- d) Provide appropriate Temporary Control Practices. Include detail, special provisions quantities, and estimate items.
- e) Include quantity tables
- f) Provide water pollution control drawings for information handout.
- g) Provide permanent erosion control PS&E.